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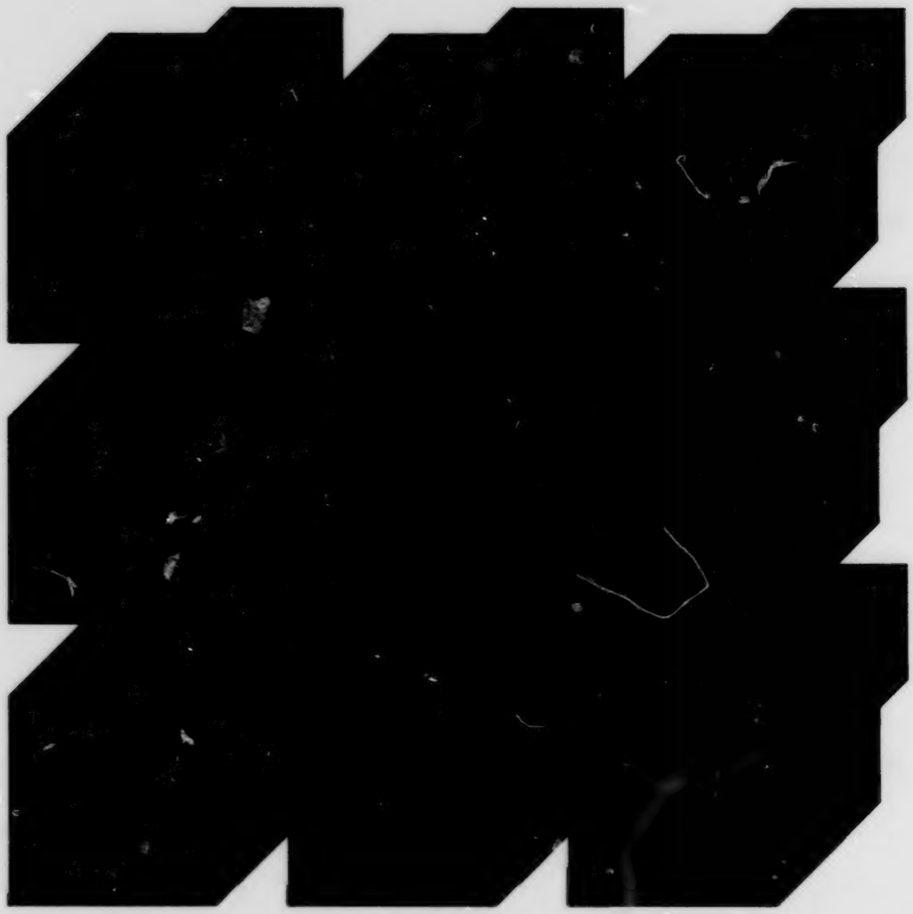

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DISCUSSION PAPER NO. 330

Something Ventured
The Canada Development Corporation
1972-85

by

Abraham Tarasofsky

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Table of Contents

Page

ACKNOWLEDGEMENTS ii

ABSTRACT iii

RÉSUMÉ iv

INTRODUCTION 1

I BACKGROUND AND PERFORMANCE

1 AN OUTLINE OF THE DEBATE AND EVENTS PRECEDING THE CREATION OF THE CDC 8

2 THREE CDCS 21

3 THE CDC'S PROFIT PERFORMANCE 32

II ANATOMY OF FAILURE

4 A RETROSPECTIVE LOOK AT THE CRITIQUE OF FOREIGN INVESTMENT IN CANADA THAT PROMPTED THE CREATION OF THE CDC 89

5 ENTREPRENEURIAL AND CAPITAL MARKET GAPS...AND THE CDC . 113

6 LESSONS AND POLICY IMPLICATIONS 136

APPENDICES

A THE CDC'S CAPITALIZATION AND SHAREHOLDERS 169

B CANADIAN MIXED ENTERPRISES AND THE CDC 172

FOOTNOTES 182

SELECTED BIBLIOGRAPHY 185

LIST OF TABLES AND FIGURES 188

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SOMETHING VENTURED
THE CANADA DEVELOPMENT CORPORATION
1972-85

Abstract

In 1971, after a long and heated debate, the Government of Canada passed legislation to create the Canada Development Corporation (CDC). The Corporation was intended to evolve into a government-private (mixed) enterprise in which private Canadian shareholders would become increasingly predominant, as its growing size and commercial success combined to make it a potent agency for Canadian control of the domestic economy. Almost fifteen years later, the government found itself actively unloading the bulk of its shares in the CDC, not when its original hopes had been largely fulfilled but, rather, when it had become painfully apparent that, at least so far as commercial success was concerned, their realization was not on the horizon.

This study recounts the highlights of the debate that preceded the creation of the CDC and reports the Corporation's commercial performance between 1972 and 1985. It is noted that three distinct CDCs can be distinguished: that of its economic-nationalist proponents, that of the government and that of the CDC's management. Then, in an attempt to unearth the roots of its lack of commercial success, the discussion focusses on the proponents' analysis of the Canadian economy, with its large and growing foreign presence, that inspired the demand for the CDC. It is found that, for all their legitimate concern about the potentially negative impact on Canada's economic and political well-being of the uniquely high proportion of her resources controlled by foreigners, and for all their reluctance to advocate punitive measures, the mainstream economic-nationalists had allowed enthusiasm to overtake rigour in certain areas. Some of these were of central importance to the case for creating the CDC.

Specifically, they believed that Canada still suffered -- even if less severely than in the past -- from inadequately developed entrepreneurial and capital markets, a condition of which large-scale foreign direct investment was both consequence and perpetuator. It was to be the express mission of their CDC to alleviate matters by mobilizing Canadian financial and human resources to undertake large, risky projects and other investments that would otherwise be left for foreigners or go begging. Suppressing early misgivings, they came to believe that the CDC would be able to perform these functions without sacrificing, even temporarily, the competitive rates of return that private shareholders require. This confidence apparently prevented them from addressing the vital practical questions of how, and by which criteria, their proposed entity would accomplish its mission.

As for the government, it saw fit to endow the Corporation's management with a legislative mandate that gave them virtual carte blanche. They, in turn, chose to interpret that mandate in their own way. In effect, they regarded it as a warrant primarily for acquiring

Résumé

En 1971, à la suite d'un débat long et acharné, le Parlement du Canada adoptait une loi créant la Corporation de développement du Canada (CDC). On espérait qu'elle deviendrait éventuellement une entreprise mixte où les actionnaires privés joueraient un rôle de plus en plus prédominant, à mesure que son expansion et son succès commercial en feraient un puissant organisme capable d'assurer aux Canadiens le contrôle de leur économie. Or, moins de quinze ans plus tard, le gouvernement s'empressait de se départir de la plupart des actions qu'il détenait dans la société, non pas parce qu'elle avait largement répondu à ses espoirs, mais parce qu'il était clair, au contraire, qu'ils n'étaient pas prêts de se réaliser, du moins sur le plan commercial.

La présente étude évoque les faits saillants du débat qui a précédé la création de la CDC et décrit la performance commerciale de cette société de 1972 à 1985. Elle dégage trois conceptions différentes de l'entreprise : celle des partisans du nationalisme économique, celle de l'État et enfin, celle des dirigeants de la CDC. Pour trouver les causes profondes de son insuccès commercial, l'auteur revient sur l'analyse que proposaient les tenants du nationalisme économique face à une économie canadienne caractérisée par une présence étrangère de plus en plus envahissante. Cette inquiétude avait d'ailleurs été l'une des raisons de créer la CDC. Il devient alors évident - en dépit de leurs préoccupations légitimes au sujet de l'incidence éventuellement négative sur le bien-être économique et politique des Canadiens de la forte proportion de nos ressources contrôlées par des sociétés étrangères, et malgré toute leur réticence à préconiser des sanctions - que la plupart des partisans du nationalisme économique ont laissé leur enthousiasme prendre le pas sur la rigueur qu'il fallait démontrer dans certains domaines. Dans bien des cas, pourtant, certains de ces mêmes dossiers avaient fortement joué en faveur de la création de la CDC.

Ils croyaient notamment qu'il existait encore au Canada - quoique moins que dans le passé - une pénurie d'entrepreneurs et des marchés de capitaux inadéquats, situation dont les investissements directs et massifs des entreprises étrangères étaient à la fois la cause et la conséquence. La CDC avait pour mission expresse d'améliorer cette conjoncture défavorable en mobilisant les ressources humaines et financières du Canada, en entreprenant des initiatives importantes et risquées et en lançant divers projets d'investissement qui, autrement, seraient laissés aux entreprises étrangères ou manqueraient de fonds. Rejetant leurs appréhensions du début, ils finirent par croire que la CDC pourrait remplir ces fonctions sans sacrifier, même temporairement, les taux de rendement concurrentiels qu'exigent

les actionnaires du secteur privé. Mais ils oublièrent apparemment deux questions pratiques, pourtant vitales : comment la société accomplirait sa mission et en vertu de quels critères.

Pour sa part, le gouvernement avait trouvé convenable de confier aux dirigeants de la Corporation un mandat législatif qui leur donnait pratiquement carte blanche. Ceux-ci décidèrent de l'interpréter à leur façon. Ils la considérèrent surtout comme une autorisation d'acheter des sociétés déjà établies - la plupart étrangères - dont le marché des valeurs mobilières avait sous-estimé les perspectives d'avenir. L'étude examine les principes directeurs et les données empiriques existantes en vue d'évaluer le réalisme de la mission que se sont donnée les dirigeants de la CDC. Il apparaît alors peu probable, comme les événements le confirment ensuite, que cette mission ait pu réussir.

Dans le chapitre des conclusions, l'auteur soutient que l'omniprésence d'entreprises étrangères dans l'économie canadienne est une source éventuelle de perturbations dont il faut sérieusement se préoccuper, et qui nécessitent au moins une enquête au sujet de leurs effets réels, et non seulement éventuels, sur le comportement des entreprises canadiennes. L'étude laisse entendre que certains aspects de la mission envisagée à l'origine par les promoteurs de la CDC sont encore valables et réalisables par une entreprise d'État, mais à condition seulement que des contrôles rigoureux et des règlements à durée d'application fixe soient imposés. Deux annexes complètent l'étude. L'une examine la CDC à titre d'instrument du capitalisme populaire; l'autre étudie l'entreprise mixte comme instrument de politique dans un pays comme le Canada.

INTRODUCTION

In May, 1985 the Government of Canada declared its intention to sell three quarters of its 47 per cent voting interest in the Canada Development Corporation (CDC) that it had created, in 1972, by an Act of Parliament. It had always been understood that the government would eventually privatize most of its holdings in the Corporation, but this sale would take place in circumstances that were very different from those that had originally been contemplated. Far from allowing individual Canadian savers further to invest in a large, Canadian-controlled conglomorate enterprise that had successfully established itself as a major entrepreneurial force on the Canadian scene, it would only afford them the opportunity to invest in a Canadian-controlled conglomorate that had met the size, but not the performance, criterion. Put another way, the proposed transfer of equity would resemble the unloading of an increasing burden, not to say embarrassment, much more than the distribution of the title to a Canadian success.

This study, undertaken as part of the Economic Council of Canada's research on Canadian government enterprises, which recently culminated in the publication of Minding the Public's Business, is an attempt to convey the salient features of the CDC story. Its purpose is to contribute to a fuller awareness of what went wrong, and why, with a major government initiative that many Canadians had campaigned to bring into existence, in which many more Canadians had invested hopes, and in which all Canadians had directly or indirectly invested money. It is important that such an awareness be developed because, as will be seen, the objective conditions that inspired and sustained the demand for the CDC, and the political and cultural tendencies that articulated it, are still very important elements of the Canadian fabric. The story of the CDC is a cautionary tale, not one that is only of historical interest.

This is not the first analysis of the performance of the CDC that has so far been performed by outside analysts. In addition to early work by Graham (1977), the author is aware of, and has drawn upon, studies by Mintz (1978) and Boardman (1984). Essentially, both latter writers measured the ex post rates of return earned by the CDC as a whole, and then compared them with those of certain other firms, or aggregates of firms, over certain intervals. Mintz also compared the CDC's performance with those of other firms in terms of risk-bearing and discussed some of the analytical issues that pertain to government-private (mixed) enterprises. The present exercise has something in common with both these studies but it goes beyond them. One difference is that, in addition to presenting the comparative rate-of-return record -- over a longer period than the others -- of the CDC as a consolidated entity, the corresponding records of its constituent parts are also presented. This is done because, given the character of the Corporation, an examination of the performances of these constituent parts, each in its own context, is indispensable to the assessment of its overall performance.

This study also differs from its predecessors in more fundamental ways. Historically, the CDC was a product of certain perspectives on the Canadian economic condition as it evolved during the post-World-War-II years, a period marked both by increasingly pervasive government intervention and increasingly heavy inflows of foreign direct investment. It was the interaction of these powerful trends that created the environment in which the idea of the CDC could emerge, take root and, after a series of ebbs and flows, eventually come to fruition. The underlying perception was widely held that there existed serious "gaps" in Canada's capital and entrepreneurial markets; it was to be the express mission of the CDC to help close them. In the event, the outlook of the cabinet that created the CDC, in 1972, was not identical to that of its predecessors and still less to that of most of the Corporation's proponents. As or more importantly, the management of the new firm had an outlook that was distinctive in its own right. They also had a legislative mandate that virtually gave them carte blanche. For the first time, the CDC's performance is examined in the context of these various factors and they are themselves scrutinized.

The study is in three parts. Part I contains three chapters. The first sketches the debate and events that led up to the creation of the CDC. The second describes three contrasting conceptions of the Corporation's functions: that of its proponents, that of the government, and that of the CDC's management. The third presents its performance as a profit-seeking entity. Part II contains two chapters, which together trace the conceptual roots of that unprepossessing performance. The sixth, and final, chapter constitutes Part III. It is concerned with the lessons to be learned from the CDC experience and their policy implications. The study concludes with two appendices. The first presents a summary of the Corporation's history as an exemplar of people's capitalism, and the second discusses the need in Canada for mixed enterprises created to serve policy ends while operating profitably in "ordinary," unregulated and nonmonopolistic markets.

As the title of Part II suggests, the underlying approach adopted below has a good deal in common with that of a pathologist seeking to determine how and why the patient's health deteriorated. After its emergence has been described and its performance set forth, the case for the CDC's creation is examined in terms of the analysis of the Canadian economy, with its large and growing foreign presence, that was developed by the Corporation's proponents. An appeal is then made to available evidence in order to assess the realism of the CDC's management's implicit conviction that Canada's equity markets consistently provide conglomarates without inside information with promising candidates for acquisition. The examination is later extended to the CDC's legislative mandate and its management's philosophy and goals.

The issue of the nature and magnitude of gaps in Canada's contemporary capital and entrepreneurial markets is of central importance to any study of the CDC. Ideally, it would have been desirable to address it in the context of a comprehensive analysis of the structures of the Canadian industrial and financial sectors. That would have facilitated the making of a judgment on whether an organization like the CDC, either as it was originally contemplated or as it emerged, was needed. It became apparent, however, as the research proceeded, that such an analysis is not yet possible, due to systematic ignorance of the actual effects that pervasive foreign control has on the operations of domestic firms. As will be seen, this difficulty was recognized at least twenty years ago, and various recommendations to rectify it were made, but little has since been accomplished. Consequently, the issue of the gaps is explored in other ways, which, though less than definitive, are sufficient for the purpose at hand. The gaps hypothesized by the CDC's mainstream proponents are described, largely in the proponents' own words. They are then critically examined in terms of their conceptual and empirical adequacy. This affords some insight into the soundness of the case for the creation of the CDC and, in particular, into the likelihood that the Corporation would succeed, as promised, in narrowing these gaps while earning a competitive rate of return.

There is another matter to be made clear at the outset. A firm's consistent commercial success depends upon many factors, ranging from well chosen markets and products to sound management practices, but the absence of only one of them -- especially an important one -- is usually enough to ensure failure. It is a primary contention of this study that the CDC's lack of commercial success during its first thirteen years is mainly attributable to the long odds its management tried to overcome in their self-chosen mission. This obstacle probably would ultimately have been too difficult for even the most competent management to surmount. The reader will therefore encounter various arguments in support of this contention: together, they constitute a major part of the cautionary tale that is the story of the CDC. Conversely, although he will learn something, he will not learn a great deal about how the CDC functioned in terms of decision-making and other management practices, not because these matters are irrelevant or uninteresting, but because they are secondary. Their study is the work of another day.

PART I

BACKGROUND AND PERFORMANCE

1 AN OUTLINE OF THE DEBATE AND EVENTS PRECEDING THE CREATION OF THE CDC

In order to develop a context in which the performance of the CDC can be considered, it is desirable to begin by sketching various views that were expressed and events that occurred during the period preceding the creation of the Corporation. Later, in Chapter 4, we will return to these views and, in particular, take a more detailed and critical look at the arguments that were advanced in favour of creating the CDC.

According to Dimma (1973), the first formal advocacy of the creation in Canada of a CDC-like institution occurred early in 1956. It appeared in a brief submitted by Gordon R. Ball, President of the Bank of Montreal, to the Royal Commission on Canada's Economic Prospects (whose Chairman, Walter L. Gordon was destined to figure prominently in the pre-CDC story). Ball proposed the creation of a private company, to be called the Canadian Development Corporation, financed by the large banks and insurance companies. It would act as an underwriter of last resort and supply either debt or equity funds to new ventures, both large and small. Once the ventures were self-sustaining, the holdings would be sold to other private investors. This proposal was endorsed, during the next two years, by other chartered banks. It was viewed as an appropriate device for closing the "dynastic capital gap," by financing large, new ventures whose payback seemed likely to be delayed -- to provide "patient money," as it were.

The underlying notion -- that, unless some concrete initiative was taken, Canada would continue to be plagued by a lack of domestically-generated funding for large-scale, long-term projects -- was widely held during those years. Proceeding from a perspective quite different from Ball's, the CCF (the forerunner of today's NDP), for example, advocated, in its 1957 election manifesto, the establishment of a public development bank that would channel Canadian savings into Canadian industrial projects. This, in its view, would serve to reduce Canada's dependence upon foreign sources of capital. Similarly, around the same time, the Gordon Royal Commission suggested, in its preliminary report, that new, unspecified mechanisms would be needed to concentrate available domestic capital for the funding of large-scale ventures.

It was the large, often dominant, role played by foreign, mainly American, capital that was widely perceived as being both a prime cause and a prime consequence of Canada's allegedly chronic inability to marshall adequate domestic savings to fund her economic development, especially where large-scale undertakings were involved.

In 1958, Alvin Hamilton, Minister of Northern Affairs in the recently-elected Progressive Conservative Government -- a self-described economic-nationalist who favoured positive incentives to foster the growth of Canadian control of domestic firms -- obtained cabinet authority to develop plans for channelling Canadian savings into Canadian-controlled ventures. He sponsored a feasibility study of a private-sector organization, created with government assistance, which was to be called the National Development Corporation. The envisaged entity would be financed by private savers, mostly individuals, who would hold both equity and debt securities, the latter government-guaranteed. It would acquire a portfolio of equity securities, issued mainly in domestically-controlled firms, but a certain amount of equity would also be acquired in foreign-controlled firms. In the latter case, control might also be sought. Corporate and government bonds would also be held. Overall, a combination of high- and low-risk securities was to be maintained so as to attract a wide spectrum of savers. The idea was discussed in cabinet during 1961, but there it languished, apparently because of the reservations of some ministers who feared that the financial community would be opposed to any such initiative.

A new phase began in 1963, when the new Liberal government announced, in its first Speech from the Throne, that one of its top priorities would be the creation of a Canada Development Corporation. The firm's function would be to provide a means of enabling Canadians to direct their savings to the development of new Canadian industries and also of increasing Canadian ownership of existing industries. The prime mover of this announcement was the new Minister of Finance, the aforementioned Walter Gordon.

Shortly afterwards, on the heels of the government's first budget, which was itself characterized by certain unprecedented, and highly controversial, measures designed to curb foreign participation in Canadian business, Gordon notified the House of Commons that the following resolution would soon be submitted to it:

> Resolved: That it is expedient to introduce a measure to further Canadian participation in the development of industries and undertakings in Canada, to increase Canadian participation in the ownership of undertakings in Canada, and generally to further the development of the resources and industries of Canada; and for such purposes to establish an investment company, to be called the Canada Development Corporation, with a share capital structure whereby the largest possible numbers of Canadians may directly and indirectly invest capital in and profit from the ownership of Canadian industries and undertakings and the development of Canada; to authorize the guarantee by Canada of certain obligations of the corporation; to provide for the approval by the Minister of Finance of issues of guaranteed obligations of the corporation; to provide that the total liabilities of the corporation outstanding at any time shall not exceed one thousand million dollars; and to provide further for other related and incidental matters. (Dimma (pp. 304-5.))

When these words are taken by themselves, their spirit does not seem to be profoundly different from that implicit in Hamilton's earlier approach. But their post-budget context served to endow them with a much more nationalistic character than his did. They therefore aroused, in contrast with the earlier reaction to Hamilton's concept, a distinctly hostile response from the business and financial communities, their distaste for much of the budget redounding against the proposed CDC. This adverse reaction also found resonance within the cabinet, some of whose members had never been more than lukewarm (if that) towards the idea of the CDC. The Prime Minister, Lester B. Pearson, though himself not unsympathetic to Gordon's economic-nationalism, acquiesced in the growing feeling that it would be best to defer the matter, at least for a while. The government temporized throughout the next eighteen months: the CDC was neither abandoned nor expedited, publicly. Behind the scenes, however, work continued. In its Speech from the Throne and budget of April, 1965, the government reiterated its intention to proceed with the Corporation.

Once again, the hostile reactions were immediate and vociferous. They varied from broad assertions that the government was no better than a bunch of NDP'rs in Liberal clothing to the reiteration of familiar, specific concerns. Prominent in the latter category were claims that Canadian capital markets were already efficient enough to ensure that all sound investments received adequate funding (and, hence, the CDC would be driven into undertaking imprudent, undeserving projects) and fears that political interference would inevitably subvert whichever (few) legitimate functions the CDC might otherwise serve. Gordon's vigorous rebuttal stressed two paramount needs: new long-term investment in Canada's resource and manufacturing sectors, and increased Canadian control of domestic firms that would also afford small shareholders with opportunities to participate in the country's growth. This vigour notwithstanding, the government again decided that discretion was advisable, and deferred further action until after the forthcoming general election.

Although shelved in terms of action, the CDC continued to be discussed publicly by both its proponents, especially Gordon, and its critics. The former tended increasingly to downplay the more explicitly nationalistic aspects of the concept in favour of more developmental objectives and to emphasize the need for the CDC to earn profits that were adequate to satisfy its private shareholders. The buy-back aspects of its prospective acquisitions were discounted in favour of their preventive aspects, which would serve to ensure that Canadian-controlled firms up for sale remained under Canadian control. The independence of its management from political interference was also stressed. Some critics continued to suggest that an adequate-profit constraint might not be compatible with the CDC's other objectives, but Gordon and his allies remained sanguine that this would not prove to be a problem. Some narrowing of divergent views occurred during these months, but the basic differences remained unresolved.

In view of subsequent developments, it is useful to quote Dimma's formulation of a syllogism that reflected the most serious reservations about the CDC that had emerged by this time.

> Axiom The CDC will either carry out a government policy or it will not.
>
> Premise 1. A CDC which does not carry out a government policy fulfills no function which cannot be performed as well or better by the private sector....
>
> Premise 2. A CDC which does carry out a government policy must be accompanied by government intervention/interference and be in conflict with profit-making.
>
> Conclusion. The CDC will either be redundant or unprofitable. Therefore, the CDC concept should be rejected. (pp. 342-43.)

He held that this syllogism would become invalid if the CDC did not carry out government policy per se but still performed gap-filling functions. The government's role would be confined to the provision of seed money to an entity that would then proceed to undertake, and stimulate the private sector into undertaking, profitable ventures that would not otherwise be undertaken.

The disappointing (for the Liberals) outcome of the general election of November, 1965 led to Gordon's resignation, since he had urged Pearson to go to the people. The new Minister of Finance was Mitchell Sharp, who had not, during the previous government's life, been a cabinet supporter of Gordon's concept of the CDC. Early in 1966, he made the following remarks concerning the CDC and various related issues:

> I am one of those who believe very strongly in the idea of a Canada Development Corporation. Canadians have not been as enterprising as they should have been in the use of their savings. I know that we haven't got the large pools of corporate capital or of individual wealth that exist in the U.S. and that are prepared to accept the risks inherent in imaginative ventures. I do feel, however, that under these circumstances a government has some responsibility to help to mobilize savings in large pools for this purpose. (Dimma (p. 356.))
>
> ...[We have a] moral responsibility to the peoples of the developing countries to reduce our dependence on imported capital. We in Canada cannot go on indefinitely being such an important consumer of scarce capital from abroad. (Dimma (p. 358.))
>
> ...does it [any proposal to further Canada's independence] strengthen Canadian independence by excluding and limiting others and denying fulfillment to ourselves? Or does it strengthen Canada by enriching the Canadian society positively -- by taking a full and creative part in this changing and exciting world? (Ibid.)

Dimma summarized Sharp's position on the CDC, at this stage, as follows:

> --In fulfilling its primary role of mobilizing savings for investment in Canadian enterprise and development, the CDC was not to be simply a large mutual fund but an "active agent in the promotion of Canadian development and industrialization under Canadian control and management." This was a reference to a financial intermediary gap as well as to an entrepreneurial and managerial gap and was consistent with the Gordon position.

> --The CDC was to be an independent body acting in the interests of its shareholders. This meant, of course, that normal economic criteria would govern. Gordon had made this point repeatedly.
>
> --Sharp saw no conflict between a CDC independent of government and a CDC as an instrument for the promotion of Canadian economic independence. Although he did not say so, in combination with the previous point, this conclusion required the CDC to confine itself to certain roles and avoid others. It would have to renounce, for example, the "buy-back" and "prevent" roles, focusing rather on the future. It could play no part in controlling foreign enterprise. *Its role would be chiefly to grow large and profitable through direct investment in viable Canadian enterprise and development. Canadian economic independence would be promoted only to the extent that the CDC -- which would be owned and controlled by Canadians -- prospered through its role in industrial development and growth.* (pp. 359-60, emphasis added.)

Though more muted, the substance of the reactions of spokesmen for the business community to Sharp's concept of the CDC was as negative as it had previously been to Gordon's. At the same time, debate within the ranks of the Liberal Party showed that the party itself was still badly divided, both as to whether the CDC should serve nationalistic or developmental purposes and as to what the government's own preference actually was. One Liberal policy conference went so far as openly to call upon the government to clarify its objectives.

Around this time, Neufeld (1966 a,b) published a thoughtful critique of the proposed entity. He recognized that a necessary (though not sufficient) condition for the creation of the CDC was the existence of a gap in Canadian capital markets that inhibited equity holding by Canadians and facilitated it by foreigners. He cited the recent Report of the Royal Commission on Banking and Finance to the effect that no large gap actually exists, although a small one might, and he went on to suggest that the existence of considerations other than such a gap could account for a substantial proportion of foreign direct investment in Canada. A foreign firm might enter the Canadian market so as to integrate vertically by owning its source(s) of raw material. It might do so simply because it already was an international firm and wanted to protect its market share. Finally, it might wish to take advantage of its existing, superior management skills. To the extent that any of these motivations governed behaviour, he did not believe that a CDC-type entity would be able to prevent foreign takeovers of Canadian-controlled firms without doing violence to its profit-making capabilities.

Neufeld had no quarrel with CDC projects that prevented foreign takeovers while they maximized its own profits, mobilized large pools of Canadian savings for projects that would otherwise not be funded by Canadians, and avoided the displacement of existing Canadian sources of equity capital. He felt, however, that it was impossible to know in advance how many projects actually or potentially existed in Canada that met these criteria and, hence, whether the CDC could accomplish the objectives that Sharp had assigned to it. Consequently, he advocated a much more conservative approach, to be adopted by an initially small CDC. Its first task should be to undertake research (which no one had yet undertaken) empirically to identify the forces actually causing foreign takeovers of Canadian-controlled firms -- to determine, in short, whether remediable problems really existed. If it was found that such problems did in fact exist, the CDC should then formulate methods for rectifying them, either by its own efforts or those of others. In closing identifiable capital market gaps, it should begin by acting as a broker; only if this did not work should it act as a lender or investor in its own right. Although, as will be seen, these ideas were far from being without merit, the temper of the times was inhospitable to such a modest and tentative approach, and they had little impact on events.

Gordon's return to the cabinet, in December, 1966, reflected a rising nationalist mood in the Liberal Party. Very shortly afterwards, he established a task force, under Melville Watkins, to examine the problem of foreign control of domestic industry and recommend ways of increasing Canadian control. The Speech from the Throne of May, 1967 reiterated the government's intention of creating the CDC, but it did so in terms that reflected the Sharp, developmental, approach rather than the Gordon approach, especially its more nationalistic version. This reflected the trend of the continuing debate within the cabinet and, no doubt, within the caucus as well.

In January, 1968, the Watkins Task Force issued its report.[1] It represented the consensus of its eight members, all of them economists, of varying outlook. The CDC figured prominently among its recommendations.

> It is recommended that the Canada Development Corporation be created as a large holding company with entrepreneurial and management functions to assume a leadership role in Canada's business and financial community in close cooperation with existing institutions. It would have the capacity to draw on the expertise of the financial community and to provide a focal point for the mobilization of entrepreneurial capital. Its size and its quasi-public character would enable it to make a unique contribution in organizing consortia of investors, domestic and foreign, thereby carrying out large projects beyond the capacity of a single institution and throughout maintaining a clear Canadian presence. (pp. 411-12.)

Although this report -- whose influential and instructive contents will be discussed below -- was on the whole received coldly by the government, that was mainly due to its other recommendations. With respect to the CDC itself, and notwithstanding its overall sympathy with its patron's nationalistic outlook, the task force essentially opted for the Sharp approach. For a variety of reasons, Gordon resigned from the cabinet in the Spring of 1968 and retired to private life.

The election, during the Summer of 1968, of a majority Liberal government, led by Pierre Elliott Trudeau, marked the start of the final phase before the 1972 emergence of the CDC. The new Prime Minister, in keeping with his long-standing, moderate and pragmatic attitude to economic-nationalism, had indicated a positive attitude towards the current version of the CDC. (The Corporation itself was not an issue in the campaign.) Sharp's successor as Minister of Finance, Edgar Benson, had a similar attitude. Once again, the CDC figured in the Speech from the Throne, but only laconically: legislation was promised. Since, by now, the Sharp notion of a developmental CDC, which would promote Canadianization only indirectly, in a forward-looking, nonbuy-back sense, had gained a broad following within the cabinet, it was not lack of interest but the pressure of more urgent priorities that prompted this leisurely approach. Work, however, continued at the bureaucratic level, accelerating in 1970, as dynamic individuals, such as Maurice Strong, became involved in the process. The appearance of the report of a parliamentary committee on Canada-U.S. relations,[2] which, inter alia, endorsed this concept of the CDC, provided further impetus.

In January, 1971, Benson placed Bill C-219, a bill creating the CDC, before the House of Commons. He described the proposed organization as "a large private corporation to help develop and maintain strong Canadian-controlled and Canadian-managed corporations in the private sector".[3] He also said that the CDC would "provide greater opportunities for Canadians to invest and participate in the economic development of Canada."[4] It would be "a large-scale source of capital to create major new enterprise".[5] It would also serve to combine "management and technical skills with financial size and strength."[6] In the ensuing debate, the government reiterated these expectations and promised noninterference in the firm's operations. It also rejected, along with various familiar Opposition criticisms, NDP attempts to give the CDC a more nationalistic orientation and make it into an instrument of economic planning. Bill C-219 received third and final reading on June 9, 1971. It quickly made its way through the Senate and received Royal Assent on June 30.

The Toronto Globe and Mail, which had tended, over the years, editorially to reflect the reservations about the CDC, in any form, that were felt in the business community, published, on December 1, 1971, a lead editorial entitled "The Beast is Loose".

After eight years of keeping it tied up the Liberals are releasing their Caliban on the business community. They are turning loose the Canada Development Corporation.

Neither one thing nor the other, illogical and inconsistent, a confused and conflicting cross of economic ideologies, its destiny will be wrapped in its struggle with its own deformities.

...It is the product of liberal-academic theorizing that works from the basic assumption that it's always necessary for the Government to intervene to set things right. That setting the climate isn't enough. That incentives and concessions and guidelines aren't adequate. That government's role is to be the playing coach.

...What it comes down to is that the Government is trying to be half government and half entrepreneur. Neither one nor the other, only a maladroit mix, that will set the cast of the entire corporation.

Its motives will be forever suspect; its personality forever split; its decisiveness forever impaired. It will be afraid to take risks because of political repercussions and afraid to play safe because of business repercussions.

Its loyalties will be divided; its fears will be manifold; its objectives confused. Canadians may sympathize with its fervently proclaimed wish to protect Canadian economic independence. But they will fear its deformities and what those deformities can produce.

Poor beast. It should be put to sleep rather than be unchained.

2 THREE CDCS

A remarkable aspect of the CDC's story is the contrast between the kinds of activity that its proponents expected it to undertake, those that its legislative mandate authorized it to undertake, and those that its management declared they would undertake. At this stage, it will suffice to describe these prospective activities with only brief commentary. This is intended to highlight certain features and concerns, and to foreshadow later, fuller consideration.

What the CDC's Proponents Intended it to Do

The economic-nationalists of the sixties, whose campaign for a CDC (and other government measures) finally bore fruit in 1972, envisaged that the Corporation would serve Canada by contributing to the development of a larger, more dynamic, and more technologically-advanced Canadian-controlled sector of the domestic economy. They also envisaged that its activities would increasingly be financed from the savings of average Canadians. More specifically, it was expected that the CDC would:

(a) provide equity (and, perhaps, also loan) finance to new and innovative Canadian ventures that might otherwise be compelled to turn to foreign sources for funds on reasonable terms;

(b) organize and fund, wholly or partly, domestic investment projects that Canadian entrepreneurs had deemed too large and too risky to undertake on their own;

(c) organize and participate in export-oriented consortia that were both big enough and efficient enough to compete in world markets;

(d) acquire sound Canadian-controlled firms up for sale that were in danger of passing into foreign hands for want of an adequately-funded Canadian buyer; and

(e) attract the ultimately dominant equity participation of large numbers of average Canadians, by making CDC shares available through institutions (such as banks) with which they routinely dealt -- and at lower transaction cost -- rather than through conventional intermediaries with which they usually did not deal.

The Sharp-Benson conception of the CDC differed from the Gordon conception, in that the former rejected a buy-back role for the Corporation while the latter had, at least at times, the appearance of contemplating it. Nevertheless, it is fair to say that they were essentially at one (though not necessarily with the same priorities) with respect to the foregoing, overlapping activities. It is also true that they both envisaged that the CDC would operate, more or less from the start (although Gordon was sometimes ambivalent about this), in a fashion that enabled its shareholders to earn a return that was not inferior, to say the least, to that which they could earn, on average, from other investments. Although it is of great importance to the analysis, this consideration was not included among the above intended purposes because it is more appropriately regarded as a constraint upon them. For all their differences about buy-back issues, none of the CDC's proponents intended that it would seek to maximize profits above all else, in isolation from the above purposes, just as though it were an ordinary private firm. They may have been willing to promise their critics that the Corporation's management would be free to choose its investments independently of the government, but that in no way implied that it was intended to be just one more commercial operation, larger, perhaps, but essentially comme les autres.

The CDC's Legislative Mandate

The Canada Development Corporation Act (1971) contains the following provision:

> 6(1) The objects of the Company are:
>
> (a) to assist in the creation or development of businesses, resources, properties and industries of Canada;
>
> (b) to expand, widen and develop opportunities for Canadians to participate in the economic development of Canada through the application of their skills and capital;
>
> (c) to invest in the shares and securities of any corporation owning property or carrying on business related to the economic interests of Canada; and
>
> (d) to invest in ventures of enterprises, including the acquisition of property, likely to benefit Canada;
>
> and shall be carried on in anticipation of profit and in the best interests of the shareholders as a whole.

What the CDC's Management Said They Would Do

Proponents may advocate and governments legislate, but the actual behaviour of an enterprise reflects the specific decisions taken by its management. These, in turn, reflect the outlook and priorities of the individuals involved. If, therefore, we are properly to assess the CDC's performance since its creation, we must begin by considering the activities that its management said they would undertake. Unlike the legislators, who preferred formulations that were as broad as they were bland, the CDC's management promulgated their modus operandi and goals in explicit terms. These bore a very tenuous relationship with the rationales for the Corporation that had been advanced earlier. Partly, this was inevitable, since these rationales varied among themselves, but mostly it was discretionary, reflecting the autonomous, collective perspective of the individuals at the helm. Their perspective was originally set forth, in considerable detail, in the CDC's first annual report and it was, in essence, reiterated in several subsequent ones.

> An important task in the early part of our first full year of operations was to try to identify the financial, entrepreneurial, and other opportunities which could be seized by the Corporation to help develop strong, profitable, and growing Canadian enterprises. We quickly determined that we would be an equity investor since we saw no reason to be a lending institution in a country already well endowed with such institutions. We determined further to concentrate on longer-range development, especially larger projects; industries which involve an upgrading of resources, a high technological base, or a good potential for building up a Canadian-based presence in international markets have a particular attraction for us. We also decided that the industries selected should have a growth rate approximately double that of Gross National Product, should offer the possibility of rate of return on equity in the range of 15% in the long run, and should have a

large enough potential to have a meaningful impact on the CDC's overall results. Finally, we concluded that we did not wish merely to duplicate or preempt the activities of other Canadian investors.

It can be seen from the foregoing that we do not view ourselves as, nor does our legislation require us to be, buyers of last resort, a "buy-back" agency, or the high bidder in some take-over contest. While it is hoped that opportunities to repatriate control of Canadian companies may arise from time to time, we must be alert to the fact that such companies may be for sale precisely because they have lost their growth characteristics. Quite frequently, the best way to build up strong and profitable Canadian-controlled corporations will be to add to the potential of high-growth enterprises which are already Canadian. Much of the foreign investment in Canada was created by starting new enterprises, and if we as a nation are to increase the Canadian content of our economy, it must be essentially by encouraging the sound growth of Canadian-controlled enterprises at a pace which exceeds that of their non-resident-owned competitors.

In any event, it is our intention to build primarily upon Canadian strengths and competence, particularly in those areas where foreign ownership is high and the investment participation of Canadians is limited. To the extent that we, whether alone or with others, increase the supply of Canadian equity funds and invest them wisely and profitably in the development of our economy, Canada's dependence on non-resident-controlled capital will be correspondingly reduced. It is of central importance that we invest in rapidly-growing enterprises since to tie up Canadian funds in less dynamic firms would result in less, not more, Canadian ownership in the long run.

To avoid scattering our resources too thinly in too many directions, and thus losing both effectiveness and a firm grip on our underlying assets, we have decided to concentrate in our initial period on six areas of investment attraction. These are:

petrochemicals;
pipelines and related northern transportation;
petroleum and natural gas;
mining, smelting, and refining;
venture capital; and
pharmaceuticals, medical equipment, and other manufactured products relating to health care.

We have determined that we should make our investments in these fields through "vehicle companies" which will have their own skilled staffs and specialized operating managements. This will enable us to keep a small, flexible, and creative central staff -- making good use of qualified consultants where required -- to direct the general policy of the vehicle companies, to maintain appropriate financial controls over them, to ensure they follow good management development policies, and to encourage them to remain innovative and growth-oriented. In this way, we hope to avoid acquiring a large, unwieldy, and inefficient central staff with the attendant risk of killing the entrepreneurial spirit and imagination of the senior management of companies in which we have investments.

> We believe that we should normally have effective financial control of our underlying companies if we are to be able to take the necessary measures to influence their value and development.
>
> This will usually mean that we and our partners will have a majority -- or close to a majority -- of the voting shares. We are prepared to enter partnerships with non-resident investors in joint venture projects but will do this only when control lies with Canadian interests. We believe that such joint ventures may be a more general feature of the Canadian investment scene in the years to come since they permit significant Canadian participation, economize on foreign capital, and make a variety of skills and markets available to major Canadian projects.
>
> Whether in joint ventures or alone, the Corporation's role will not be to intervene in the day-to-day operations of the underlying companies but rather to take an active part in their strategy, goal-setting, and longer-range business planning. This we will do primarily through membership on their boards or executive committees, and we shall be prepared to change senior management if it is weak or inadequate. (pp. 1-2, emphasis added.)

Several themes emerge from the foregoing. The CDC would focus on industries that needed upgrading, have a high technological base, or have the potential for giving Canadians an increased presence in international markets. These industries should grow, by some undefined measure (which may be assumed to be sales) at twice the rate of growth of GNP, and they should eventually give shareholders an annual return of about 15 per cent. This above-average target return was set at a time when inflation had not yet begun the strong upward trend it was soon to exhibit.

It was also declared that the CDC would prefer to operate in industries dominated by foreign-controlled firms but in which there already existed Canadian "strengths and competence." The specific, large firms in which the CDC would invest -- to the extent of acquiring effective control -- would already be dynamic and rapidly-growing. The associated "vehicle" firms would have their own operating managements, skilled in the field: CDC personnel would confine themselves to general direction and financial control.

Some Preliminary Comments on the Management's Approach

Although a fuller discussion is best deferred until later, when it can be done retrospectively in the light of the CDC's actual performance, the modus operandi and goals that its management announced when they commenced operations warrant a few comments at this stage. This is so because, taken at face value, they should have prompted a certain unease, especially if they had been considered in the light of the arguments that had previously been advanced by the Corporation's proponents.

To begin with, there was a dearth of explanation as to why the chosen orientation was in Canada's interests. There was also considerable ambiguity in what was said. The CDC would concentrate on large, long-range projects, especially in high-growth industries. These industries would be characterized by high levels of foreign ownership and limited investment opportunities for Canadians, but there must also exist Canadian strengths and competence in those fields. Yet, the CDC did not see itself as a buy-back agency. Neither did it regard itself as a bailout agency; it would only invest in rapidly-growing enterprises.

Despite these disclaimers, it was apparent that the CDC was likely to have a buy-back orientation, whereby it would seek to acquire large, successful, foreign-controlled domestic firms that operated in industries dominated by such firms. These firms would already have skilled managements (mostly composed of foreigners), who would presumably remain to continue doing what they had done before. The CDC would presumably confine itself to directing their affairs in a fashion that was analogous to the direction previously provided by the firms' foreign parents. Given that the already-existing, smaller, Canadian firms would face competition from these firms, now Canadianized (with public funds) but run by foreigners, how would the Canadian national interest be served? The CDC's management had little to say about this intriguing question.

They also undertook a complex task. They would invest in industries that involved an upgrading of resources, a high technological base, or a good potential for enlarging Canada's international presence. Whether these activities are regarded as alternatives or concommitants, they presented an enormous challenge to the management of a single, omnibus firm, especially if the industries selected also needed to be growing at twice the rate of GNP and have the prospect of earning above-average profits.

The CDC's management also provided little or no information to explain their selection of the six areas of concentration. Two of these, petroleum and natural gas, and mining, smelting and refining, are resource industries, largely export-oriented, in which foreign-controlled firms have predominated. However optimistically their growth and profit prospects might have been viewed in 1972 (before the OPEC price shocks), it is hard to regard them, in their nonmanufacturing operations, as having a particularly high-technology character. Admittedly, this reservation does not apply to the petrochemical, pharmaceutical and life sciences industries. There is also no difficulty in understanding why the venture capital industry was included in the list, since it had been widely regarded as requiring government involvement in one form or another. On the other hand, specific ventures would necessarily tend to be small, and the industry's profit track record had not been impressive. How would that conform with the CDC's long-term, high-profit goals?

There was also an overarching cause for concern. The CDC's management clearly saw themselves as being much more in the business of acquiring existing firms than in that of creating new ones from scratch. Given their explicit profit-seeking orientation, this could only mean that they expected the acquired firms to perform better, under their aegis, than the stock market had anticipated. Whether and, if so, to what extent this outlook was realistic, in the context of stock markets like the Canadian, and whether and, if so, to what extent it conformed with the mission that was implicit in the case that had been made for creating the CDC were issues that might well have given pause to the careful reader of the Corporation's philosophy and goals.

Before proceeding to the consideration of the CDC's performance as a profit-seeking entity, it is useful to conclude these preliminary comments, with their foreboding undertone, with an important reminder. It was, in the end, up to its management to run the CDC as a going concern, to choose its investments and then administer them. Even though their enabling legislation gave them virtual carte blanche, they surely were aware of the government's outlook and expectations, as well as the arguments advanced and the expectations held by the Corporation's proponents. If, taken as a whole, these pronouncements were not without their divergencies and even inconsistencies, they still contained a very considerable degree of commonality, and this differed importantly from the management's conception of the CDC's role. The management undoubtedly had their own reasons for choosing their particular orientation, and they are to be held responsible for it and for its translation into specific investment decisions. In view of the outcome, there is a temptation -- only partly born of the wisdom of hindsight -- to suggest that Canada probably would have been better served by an adherence to the earlier consensus. It is important, however, to recognize that few, if any, of the CDC's proponents, whether in or out of government, had devoted serious attention to the thorny question of how the CDC would actually carry out the activities they prescribed for it. For example: How (by which criteria) would the Corporation deploy its assets? How would it discern, in time to act, the large, risky projects that would otherwise be undertaken by foreigners? And so on.

Put another way, there was a large space between the vision of the CDC's proponents and the reality inhabited by its management. Lacking even general guidelines as to how they were expected to operate in quotidian terms, they filled the vacuum in their own way. That this would happen was inevitable and implies nothing, in itself, about the wisdom of that way. Given their unrestricted legislative mandate, what might be termed the institutional imperative was bound to assert itself. Endow, in such circumstances, a conglomerate's management with a large sum of equity and they will put it to use, whether that use adequately reflects previous expectations or not. They will also try to increase their firm's roster of holdings, certainly in terms of size and, probably, in terms of variety as well. We cannot know, but there is no reason to suppose that they initially were philosophically unsympathetic to the expectations of the CDC's proponents, and that is why they chose as they did. Perhaps the reality they inhabited afforded no opportunity to fulfill those expectations -- there really were, at that time, no projects to undertake of the anticipated type -- it afforded only the institutional imperative to do something. After all, they could hardly inform the government, and indirectly the Canadian public, that the kinds of activities that they were expected to undertake were not immediately available and, hence, they would do nothing.

The operational vacuum that existed between its proponent's vision and the mundane environment inhabited by its management is a matter of great importance to the study of the CDC. It will therefore be taken up again in several places below.

3 THE CDC'S PROFIT PERFORMANCE

Criteria for Assessing the CDC's Profitability

Since the ultimate earning of relatively high profits was the primary, and perhaps the sole, objective of its management, the CDC's performance must be assessed, in the first instance, on the basis of profit measurements. These require some discussion, as it is not an easy task to measure profits. To begin with, there is more than one definition and measure of profit, mainly because there is more than one claimant on what remains after a firm's revenues have been reduced by the costs of earning them. Two measures have particularly wide currency: the after-tax rate of return on capital employed and that on common equity. The first represents the rate of return earned by the firm's productive assets, the second the rate of return earned by its common shareholders (who, generally speaking, receive whatever profits are left after all other claims have been satisfied). Although both these measures are relevant, the latter is more relevant, since it is the CDC's performance from the standpoint of its shareholders that interests us most.[1]

There are, however, some problems to be noted. The decade under review was characterized by chronic, and at times high, inflation. The CDC only reported its financial results in terms of conventional accounting rather than in inflation-adjusted terms. Consequently, the comparisons that must be made in order to assess the CDC's relative performance -- the only kind that matters -- are rendered more difficult. This is so because the impact of inflation varies, not only among different industries but also among their constituent firms. Hence, the observable, conventional comparisons can easily differ from the unobservable, inflation-adjusted ones.

Another problem arises from the fact that the available data do not adequately discriminate between the firms' common shareholders and those categories of preferred shareholders that might be entitled to share their residual claims on profits. Thus, instead of making the comparisons on the basis of returns to common equity, it has been necessary to make them on the basis of returns to total equity.

It would also have been very useful to examine the CDC's relative stock market performance -- in terms of the dividends and capital gains or losses earned by its shareholders. This, however, was not practicable because, as will become apparent in Appendix A, the Corporation's shares, especially its common shares, have not been distributed and traded in a fashion that would allow this type of analysis meaningfully to be made. The same is true, *a fortiori*, of most of the CDC's acquisitions, especially its major ones; the acquired firms became wholly-owned subsidiaries (i.e., their shares ceased being traded). Consequently, it was not feasible to apply one or another version of the Capital Asset Pricing Model to the stock market performance of either the CDC's shares or those of its subsidiaries, in order to estimate the degrees of risk that they bore and other variables.[2]

This limitation must not be taken as a reflection on the reliability of the profit and risk measures presented below for the CDC, its main investment vehicles, and the firms with which they are compared. For all their venerability and relative ease of computation, rates of return on equity remain the most widely used profit measure, even for firms whose shares are traded, and their variation still serves as a reliable measure of risk bearing. Like all accounting data, with their intrinsic vagaries, these measures must be used judiciously, but they are not less valuable for that, especially if nothing else is available.

Finally, there is the important question of which firms are suitable for comparison with the CDC. This encounters the further difficulty that the operations of different firms are subject to different degrees of risk. A failure to take that fact into account when comparing the returns of different firms would seriously undermine the validity of the comparisons. Put another way, if Firm A earns a higher rate of return than Firm B this, in itself, reveals very little about the relative profitability of the firms, as it is entirely possible that Firm A has been engaging in riskier activities than Firm B. Firm A's higher returns would then need to be higher than those of Firm B (though not necessarily to the extent of the observable difference) in order to compensate its shareholders for their greater risk-bearing. Thus, unless something can be said about the relative risks borne by the firms, a simple comparison of their rates of return is an inherently dubious exercise. Happily, it is generally agreed that the relative variability of a firm's rates of return over an interval of reasonable length is a valid measure, in at least ordinal terms, of the relative riskiness of its operations. The coefficients of variation of the rates of return of the CDC and the firms with which it (or its constituent vehicles) are compared are therefore reported -- when the lengths of the intervals are adequate -- along with their respective rates of return.[3]

As to which firms should be chosen for comparison, that depends upon the specific question to be addressed. There are several of these, and the first is also the most basic. Since the CDC set for itself the task of ultimately earning relatively high profits for its shareholders, its overall, average rate of return over an interval of adequate length should be compared with that earned by nonfinancial Canadian corporations, as a group.[4] The latter measure may be regarded as an estimate of the opportunity cost of the CDC's equity. Similarly, the coefficients of variation of those rates of return over the interval may be regarded as measures of the risk borne by the CDC and the nonfinancial sector. For the CDC to be considered unambiguously profitable over the interval, its average annual rate of return on equity would have to exceed that of the nonfinancial sector while, at the same time, the coefficient of variation of its rates of return would have to be no higher than that of the rates of return of the nonfinancial sector. By the same token, if the CDC's average rate of return were lower than that of the nonfinancial sector but its corresponding coefficient of variation were not lower than that pertaining to the nonfinancial sector, then the CDC would clearly be unprofitable. The implications of the remaining two possible combinations of average rates of return and coefficients of variation, where the CDC's values were both higher or lower than those of the nonfinancial sector, are ambiguous and subject to orders of magnitude. (Fortunately or unfortunately, this problem does not arise.)

To develop a context, Table 1 sets forth the evolution, between 1973 and 1982, of the CDC's involvement in its various areas of concentration, in terms of total assets deployed. Table 2 presents the contribution of each area to the CDC's total net income. These tables make it clear that the CDC's decisive commitments have been confined to only three of the six areas of concentration that were identified at the outset: petrochemicals, mining, and oil and gas. Granted that, during the last five years, there were also significant CDC involvements in the information processing and industrial automation industries, which were not originally contemplated, they are still very secondary to the three major ones. Not surprisingly, it is in these three areas that the Corporation has earned the lion's share of its profits and/or losses. For this reason, its performance in each area will be examined below, under separate cover. Its performances in the remaining areas will not, however, be neglected. They will be considered collectively but much more cursorily, with the main attention being given to the information processing industry and the life sciences industry.

Table 1

Canada Development Corporation

Total Assets*, by Industry Group, 1973-82

	1973		1974		1975		1976		1977	
	$Million	%	$Million	%	$Million	%	$Million	%	$Million	%
Oil and gas					135.0	10.6	125.6	7.9	187.3	9.1
Mining	276.5	39.4	307.9	34.2	324.2	25.4	377.4	23.7	367.9	17.8
Petrochemicals	341.5	48.7	444.7	49.4	602.6	47.2	913.1	57.4	1,314.0	63.6
Information Processing										
Life Sciences	69.5	9.9	83.2	9.3	89.8	7.0	101.3	6.4	108.7	5.3
Fishing										
Industrial Automation										
Venture and Expansion Capital	10.2	1.5	11.4	1.3	12.3	1.0	10.3	0.6	12.3	0.6
Miscellaneous	3.8	0.5	52.4	5.8	113.6	8.8	64.5	4.0	75.9	3.6
Total	701.5	100.0	899.6	100.0	1,277.5	100.0	1,592.2	100.0	2,066.1	100.0

Table 1 (Cont'd)

Canada Development Corporation

Total Assets*, by Industry Group, 1973-82

	1978		1979		1980		1981		1982	
	$Million	%	$Million	%	$Million	%	$Million	%	$Million	%
Oil and gas	180.2	7.1	222.5	8.0	377.5	11.0	2,639.0	37.2	2,918.4	38.8
Mining	370.2	14.6	449.5	16.2	565.2	16.4	1,650.6	23.3	1,415.3	18.8
Petrochemicals	1,585.9	62.5	1,714.4	61.9	1,752.1	50.8	2,244.0	31.6	2,271.8	30.2
Information Processing	134.7	5.3	180.5	6.5	230.2	6.7	233.2	3.3	689.5	9.2
Life Sciences	152.8	6.0	154.2	5.6	153.3	4.4	150.0	2.2	108.6	1.4
Fishing					34.7	1.0	30.3	0.4	24.6	0.3
Industrial Automation							43.5	0.6	38.7	0.5
Venture and Expansion Capital	19.7	0.8	18.6	0.7	17.0	0.5	29.0	0.4	38.8	0.5
Miscellaneous	94.3	3.7	28.2	1.1	316.3	9.2	73.5	1.0	20.2	0.3
Total	2,537.8	100.0	2,767.9	100.0	3,446.3	100.0	7,093.1	100.0	7,525.9	100.0

* Including assets of firms in which CDC has a controlling interest.

Source Canada Development Corporation annual reports.

Table 2

Canada Development Corporation

Net Income, by Industry Group, 1973-82

	1973		1974		1975		1976		1977	
	$Million	%	$Million	%	$Million	%	$Million	%	$Million	%
Oil and gas							7.7	34.2	10.4	43.7
Mining	6.8	36.4	40.4	68.5	27.6	105.8	14.9	66.2	10.9	45.8
Petrochemicals	10.6	56.6	18.1	30.6	(1.2)	(4.6)	3.4	15.1	10.2	42.8
Information Processing										
Life Sciences	0.0	0.0	(0.2)	(0.3)	(2.0)	(7.7)	0.6	2.7	(1.1)	(4.6)
Fishing										
Industrial Automation										
Venture and Expansion Capital	1.3	7.0	1.1	1.9	0.8	3.1	(2.0)	(8.9)	0.0	0.0
Miscellaneous	0.0		(0.4)	(0.7)	0.9	3.4	(2.1)	(9.3)	(6.6)	(27.7)
Total	18.7	100.0	59.0	100.0	26.1	100.0	22.5	100.0	23.8	100.0

Table 2 (Cont'd)

Canada Development Corporation

Net Income, by Industry Group, 1973-82

	1978		1979		1980		1981		1982	
	$Million	%	$Million	%	$Million	%	$Million	%	$Million	%
Oil and gas	10.9	30.0	20.2	16.4	24.9	13.2	0.1	0.1	(14.4)	(11.5)
Mining	13.4	36.8	46.6	37.7	108.1	57.2	67.6	79.4	(37.3)	(29.6)
Petrochemicals	10.3	28.3	57.8	46.9	74.1	39.2	14.7	17.3	(38.6)	(30.7)
Information Processing	1.3	3.6	1.6	1.3	0.0	0.0	8.9	10.5	(10.3)	(8.2)
Life Sciences	4.1	11.2	4.2	3.4	2.8	1.4	1.9	2.2	3.9	3.1
Fishing					0.7	0.4	(1.6)	(1.9)	(7.1)	(5.6)
Industrial Automation							(7.2)	(8.5)	(5.8)	(4.6)
Venture and Expansion Capital	0.0	0.0	(3.4)	(2.8)	(7.7)	(4.1)	(3.2)	(3.7)	0.0	0.0
Miscellaneous	(3.6)	(9.9)	(3.6)	(2.9)	(13.8)	(7.3)	3.9	4.6	(16.2)	(12.9)
Total	36.4	100.0	123.4	100.0	189.1	100.0	85.1	100.0	(125.8)	100.0

Source Canada Development Corporation annual reports.

The Profit Performance of the CDC as a Whole

The immediate focus is on how well the CDC as a whole has performed on behalf of its shareholders. Table 3 gives the after-tax rates of return on equity for the decade 1973-82, for both the CDC and the Canadian nonfinancial sector. These years are reported together because the CDC's financial reporting for them is much more detailed than it is for the following years. (Those years will be considered subsequently.) By a useful coincidence, this decade conforms fairly closely to the interval covered by two full business cycles, as identified by Statistics Canada.[5] It is therefore fair to regard it as being a period within which the cyclical effects and vagaries of a complex and unpredictable environment had enough time to work themselves out, both for good and ill.

It emerges that the CDC's average rate of return on equity over its first decade was strikingly low. In relation to the average rate of return earned by shareholders in the nonfinancial sector, the average rate of return to the CDC's shareholders was less than half. (The picture, in absolute terms, is no brighter, especially if account could be taken of the high rates of inflation that characterized the period following the mid-seventies. That would render the real returns to the CDC's shareholders much less than the already low nominal ones.) As to relative risk-bearing, the CDC bore a considerably higher level of risk than the average nonfinancial firm. In sum, there are good grounds

Table 3

Canada Development Corporation and Nonfinancial Sector

After-Tax Rates of Return on Equity and Estimated Foregone Earnings, 1973-82

	Rate of Return %		Estimated Foregone Earnings $ Million
	CDC	Nonfinancial Sector	
1973	7.4	14.0	19.4
1974	13.2	15.5	10.2
1975	4.1	13.7	59.9
1976	3.1	12.6	66.7
1977	3.3	12.1	62.3
1978	5.0	13.9	64.0
1979	15.5	17.9	18.3
1980	17.4	16.0	(15.4)
1981	6.6	11.5	63.8
1982	(10.5)	6.0	197.3
Average 1973-82	6.5	13.3	
Coefficient of Variation	1.15	0.23	

Sources Canada Development Corporation annual reports and Statistics Canada.

for concluding that, over its first decade, the CDC shifted substantial funds to a higher level of risk than that to which they would otherwise have been exposed, but this was done at the cost of a much lower rate of return than would otherwise have been earned.[6] Table 3 suggests how substantial this cost was (in annual current-dollar terms). It consists of the successive annual differences between the CDC's actual earnings and those that would have accrued to it from rates of return that equalled those earned by the average nonfinancial firm. Because of the high inflation that characterized most of the decade, it is best to refrain from aggregation and let the annual differences speak for themselves.

The Profit Performances of the CDC's Investment Vehicles

The foregoing has provided some broad indications of the results of the CDC's activities over the decade. But that tells us nothing about the individual performances of the investments that together determined the Corporation's overall performance. These performances are important to our understanding of the overall performance because the CDC was expressly intended not to operate passively, like a mutual fund with a portfolio of securities in firms in whose decision-making it was not directly involved. The CDC was conceived, and conceived of itself, as an investment, or management, holding company, which would assume responsibility for at least the major deployments of its subsidiaries' resources. The consequences of those deployments therefore reflect the soundness of the CDC's own assessments of the conditions in its subsidiaries' markets.

The basic questions to be posed (whenever possible) in looking at the performances of the major investment vehicles are partly analogous to those posed in connection with the CDC's overall performance and partly different. The analogous questions are:

(1) How do both the after-tax rates of return on equity of the investment vehicles and their associated coefficients of variation compare, over the past decade, with those of the nonfinancial sector as a whole?

(2) How do these indicators compare, over the same decade, with those of other firms in the same industries, which are more or less comparable to the investment vehicles?

These investment vehicles are usually composed of entities that existed before the advent of the CDC, sometimes quite a long time before. Since they had already established track records of their own, the answers to the further questions, which draw upon those track records, are intended to give some sense of how they *might* have performed, over the CDC-decade, if they had not been acquired by the CDC. These questions are:

(3) How do both the after-tax rates of return on equity of the investment vehicles and their associated coefficients of variation for the preceding, pre-acquisition decade compare with those for the current decade?

(4) How do both these indicators compare, over both the pre-acquisition and post-acquisition decades, with those of the industries to which the investment vehicles belong?

(5) What other evidence is available pertaining to the investment vehicles' performances, during both decades, which might shed light on the consequences of their acquisition by the CDC?

The first CDC investment vehicle to be considered on the basis of these questions is the one engaged in mining, since it is the only one to which all the questions can be applied. For various reasons, this is less practicable in the other cases. To keep it in line with that of the CDC's overall performance, the following discussion will only refer to the 1973-82 decade. The 1983-85 years will be considered together subsequently, in the context of the CDC's overall performance during those years.

Mining

Mining was, until recently, the third-largest area of direct commitment of the CDC, involving assets in the vicinity of $1.5 billion. (It is now a correspondingly important area of indirect commitment.) Unlike its behaviour in oil and gas, which is considered next, the Corporation went into mining on a large scale from the outset. In October, 1973, it acquired a controlling interest of 30.3 per cent of the voting equity of Texasgulf Incorporated, a large, U.S.-controlled mining/natural resource company. The price paid was $271.4 million, financed mainly by the issue of additional CDC shares, both to the government and to the public, with the balance being provided by bank credit.

Texasgulf had, under various, similar names, been in business, mainly in the United States, since 1909, and had become, some decades later, the world's largest producer of sulphur. Its operations were extended, initially on a small scale, to Canada in the late thirties. After the war the company increased its diversification into other resource fields, and in various countries. This led, in 1964, to a major discovery of ore, rich in zinc, copper and silver, near Timmins, Ontario, at a place called Kidd Creek, which transformed the company's overall situation. That made it, in addition to its already dominant status as a sulphur producer, one of the world's largest producers of zinc and silver. It also became one of the most important resource-based enterprises in Canada, albeit foreign-controlled and having many foreign interests.

Graham made it clear that, during the years after 1964, Texasgulf energetically expanded its investments and holdings, especially in Canada.

> ... By 1968, TXG's [sic] sales had doubled and its net income more than doubled. By the early 1970s, metal sales had risen to over half of total sales, over 40% of TXG's assets were held in Canada, and between two-thirds and three-quarters of operating income were being derived in Canada; this proportion reached a peak in 1973. Softening product prices saw profits falling away after 1968, but this did not deter TXG from launching into an ambitious multi-year capital expansion and diversification program. (p. 30.)

Table 4 presents the firm's after-tax rates of return on equity over the nine years 1965-73, together with the corresponding rates of return for the industry as a whole. Their coefficients of variation are also reported. It appears that, while under American control, Texasgulf performed better than the average firm in its industry, both in terms of rate of return and riskiness of operation.

The CDC acquired its controlling interest in Texasgulf by means of a tender offer of $29 per share, when the market price of the shares was in the vicinity of $25. The takeover attempt succeeded in spite of efforts by Texasgulf's management to block it in the American courts. Its success not only brought control of the Company to Canada but also about half of the ownership of its outstanding shares. It was followed by an announcement of the resolution of differences between the previous management and the CDC, and also by the appointment of three CDC directors to the Texasgulf Board. This brought to four the number of Canadian directors. As for the day-to-day management of Texasgulf, Graham put it as follows: "Richard D. Mollison, president of Texasgulf Canada, is an American, and TXG cannot be construed as being Canadian-managed.... (p. 39.) It appears that Texasgulf's day-to-day operations continued throughout the seventies to rest in essentially the same hands as before. (Only after a tragic plane crash, in which a large number of the company's senior executives died, did the number of Canadians occupying senior positions increase.) The firm was as energetic in its investment activities after control passed to the CDC as it had been before.

Table 4

Metal Mining

After Tax Rates of Return on Equity, 1965-73

	Texasgulf	Metal Mining Industry
	%	
1965	13.4	14.4
1966	17.1	16.6
1967	31.3	16.5
1968	27.7	15.0
1969	19.5	23.0
1970	10.3	16.0
1971	5.7	8.4
1972	8.1	6.0
1973	17.9	21.8
Average 1965-73	16.8	13.8
Coefficient of variation	.48	.39

Sources Texasgulf Inc. annual reports, and Pye (1981).

In 1981, two transactions of major importance were completed. One involved the exchange of the CDC's interest in Texasgulf (plus cash amounting to $537 million) for that firm's Canadian resource assets. The other involved transferring the oil and gas assets in the group to CDC Oil and Gas, which was renamed Canterra Energy Ltd. The remaining assets, together with other CDC mining holdings, were grouped under a new, wholly-owned subsidiary named Kidd Creek Mines Ltd.

Table 5 presents the after-tax rates of return on equity, over the nine years, 1974-82, earned by the CDC's mining investments (now Kidd Creek), by the relevant industry, and by three other large, relatively comparable, Canadian-controlled mining companies. The most important comparison, of course, is not between Kidd Creek's performance and any of the other performances listed in this table. It is between Kidd Creek's performance and the performance, over the same period, of the Canadian nonfinancial sector, which is shown in Table 3. This is the comparison that indicates how Kidd Creek's shareholders fared in relation to how they would have fared, on average, if they had held a generalized, notional portfolio of Canadian equities. It can be said, on this basis, that they fared about as well as they would otherwise have done, but they bore a higher level of risk.

Table 5 also allows comparisons between Kidd Creek's performance and that of the industry to which it belongs, and also between those of certain "peer" companies. In the first comparison, there does not appear to be very much difference -- except, perhaps, that Kidd Creek bore a higher level of risk -- between Kidd Creek's

Table 5

Metal Mining

After-Tax Rates of Return on Equity, 1974-82

	Metal Mining Industry	Kidd Creek	Cominco %	Hudson Bay Mining	Noranda
1974	16.6	30.8	23.3	18.0	22.5
1975	9.3	18.9	18.7	6.9	7.3
1976	9.2	9.5	11.0	(3.9)	6.6
1977	10.4	6.2	13.1	24.9	9.2
1978	12.4	6.6	12.5	2.0	16.5
1979	22.5	16.7	32.9	12.5	33.6
1980	19.6	26.2	23.4	20.3	23.6
1981	11.0	10.7	8.0	(3.3)	6.8
1982	(2.3)	(4.4)	(3.7)	(2.8)	(3.0)
Average 1974-82	12.1	13.5	15.5	8.3	13.7
Coefficient of variation	0.56	0.76	0.65	1.25	0.78

Sources Statistics Canada and Financial Post Corporation Service.

earnings over the decade and those of the average firm in its industry. As regards Cominco and Noranda, it is hard to distinguish Kidd Creek's performance, either as to earnings or risk-bearing, from those of either firm: their own performances also closely resemble one another. Only in relation to Hudson Bay Mining and Smelting does there seem to be a significant difference. Kidd Creek strongly outperformed this firm in terms of earnings and it also bore much less risk. There are, of course, important caveats to be recorded. Mining firms vary widely, not only in size, but also in their ore mixes. As well, resource-industry firms, unlike those in other industries, are constrained by the natural characteristics of their resource endowments. Hence, the discretionary options of their managements are likely to be less than those of the managements of other firms. And, we have only compared Kidd Creek with three other firms (granted that the set of comparable firms is probably not much greater than three). The overall impression nevertheless remains that Kidd Creek performed about as well, over the nine post-acquisition years, as the average nonfinancial firm, the average firm in its industry, and the average, large "peer" firm. Comparing, by means of Table 4 and Table 5, Kidd Creek's (Texasgulf's) performance over these years with that of the nine preceding, pre-acquisition years gives a similar impression. The same is true of the firm's investment performances over the two intervals: they were both superior to those of the industry as a whole.

To sum up, there are plausible grounds for concluding that the CDC's acquisition of, first, control of Texasgulf and, subsequently, full ownership of its Canadian properties, had little impact upon that firm's overall performance in the relevant markets. Nor do these events seem to have significantly affected, either for good or ill, the fortunes of the shareholders involved in them.

Oil and Gas

Developments From 1976 to 1980

The largest CDC commitment is currently in the oil and gas industry, where what is now Canterra Energy Ltd. deploys total assets in excess of $3 billion. This makes it the fourth largest Canadian-controlled oil and gas firm and the twelfth largest in Canada. Originally, however, the CDC's involvement in oil and gas was on a much smaller scale.

The Corporation entered the exploration, development and production end of the oil and gas business -- to which it has since confined itself -- at the end of 1975, when it bought many of the Canadian assets of the U.S.-controlled Tenneco Inc. The total price paid amounted to $111 million, financed by the issue of redeemable voting preferred shares, and the new CDC subsidiary established for this area of operations was called CDC Oil and Gas Ltd. Graham suggested that the acquisition was accomplished at a fair, but not bargain, price. He also reported that Tenneco's desire to sell its Canadian holdings, many of them of long standing, was at least partly prompted by its growing disenchantment with the current and prospective energy policies of the federal government. The management of the new firm, according to the CDC's Annual Report for 1976, were basically taken over from Tenneco (and were mostly Americans), but its directors were all Canadians.

To contemplate the state of affairs -- existing and anticipated -- in the energy field in 1975 and, especially in oil and gas, is to explain why a firm like the CDC, with money at its disposal and on the hunt for profitable ventures, would be tempted to enter it. OPEC was riding high and seemed destined to continue doing so in the minds of all but a few analysts. There was also a generally-held belief that the demand for oil and gas would continue rising indefinitely, conservation efforts and the possibility of the emergence of alternative energy forms notwithstanding, while the known reserves of these nonrenewable resources would, unless major new discoveries were made, become more and more depleted. All this served to make getting into the oil and gas business seem like a very attractive proposition indeed, as the government allowed domestic prices to rise in relation to ever-higher world prices. Given the CDC's conception of its mission, it would have been surprising if it had not sought to enter the oil and gas business.

The CDC chose to do so in the same way in which it had already entered other fields and was later to enter more -- by buying an existing firm's productive assets rather than by engaging in capital formation and creating (in this case, finding) new ones. In a world of perfect markets, where productive assets, whether just-created or already-existing, fetch prices that reflect the discounted values of their future earnings flows, it would matter little, so far as entry cost was concerned, how an entrepreneur went into a given line of business. In the real world, however, it could matter a good deal. It has been shown that the workings of securities markets, especially under inflationary conditions, can easily produce sizeable differences, in either direction, between the stock-market values of a firm's assets and their replacement prices.[7] It is therefore difficult to say, on purely conceptual grounds, whether, in proceeding as it did, the Corporation received the best value for its money, in terms of oil and gas properties, although Tenneco's disenchantment with Canada tends to militate in that direction.

The CDC's money presumably left Canada at the time of the acquisition, Tenneco being an American firm, but its Canadian assets' future income would now remain here. Had Tenneco not sold those assets, their purchase price would have stayed in Canada but their future income would have left. In present value terms the prospective inflows and outflows may be assumed, for our purposes, largely to offset one another. As to the overall level of exploration and development in the Canadian oil and gas industry, the transaction probably left it unchanged, since there is no reason to believe that Tenneco had been insufficiently active. In addition, the likelihood that the acquisition price more or less accurately reflected the present value to Canadians of the assets' future earnings implies that it is irrelevant, in distributive terms, whether those assets had been earning, or would henceforth earn, more than comparable assets in the industry. There is, in other words, no basis for the notion that any "excess profits" would now not only remain in Canada, but would also accrue to "all Canadians" via the CDC. This consideration is, of course, not unique to the CDC's entry into the oil and gas business. It also applies to its entry into other fields, when that was accomplished by acquiring, at market value, the Canadian assets of foreign-controlled firms.

During the first five years of its existence CDC Oil and Gas was a relatively minor operation, both as a producer of oil and gas and as a CDC venture. It ranked 27th among Canadian producers, and it stood quantitatively in the shadows of the CDC's interests in mining and petrochemicals. It was, however, quite aggressive in exploration and development, and also in the acquisition of additional holdings, both in Canada and abroad. (An example of the early foreign acquisitions made by CDC Oil and Gas is its payment of $45 million (U.S.) for a share in acreage in Louisiana.) It seems to have been the firm's intention from the outset to concentrate its exploration strategy in high-risk areas with high potential, especially in its Canadian activities. Nor was its whole emphasis to be on oil and gas; a mineral division was established in 1978 to participate in uranium exploration projects with other firms.

Developments Since 1980

Although the National Energy Program was to have a profound impact on the CDC's oil and gas activities, its initial reaction to the Program's advent, in late 1980, was rather ambivalent.[8] Nevertheless, attracted by the grants available under the Petroleum Incentives

Program, the firm declared its intention of accelerating exploration in Canada Lands. This proved to be a decisive factor, for, in 1981, the CDC took the major step of purchasing Aquitaine Company of Canada from its French parent for a total price of $1.6 billion, financed largely (and dangerously) by a 10-year bank loan. During the same year, it also acquired, as was indicated earlier, the substantial Canadian oil, gas and sulphur properties of Texasgulf. These new assets, together with those of CDC Oil and Gas, were all grouped under the aegis of the newly-formed, wholly-owned subsidiary, Canterra Energy Ltd.

The 1981 economic and psychological environments surrounding oil and gas were, if anything, even more feverish and full of alarums and excursions than they had been in 1975. The following quotation from a major, 1980 publication of the federal government accurately conveys the temper of the times.[9] (It also describes a state of affairs that could again descend upon the industrialized world in the not-too-distant future.)

> The world energy problem is a problem of oil availability and price. Over the past two decades the world tripled its consumption of oil. The relative use of oil doubled from one-fifth to two-fifths of primary energy demand. This growth, coupled with a decline in the capacity of the United States to supply its own oil needs, has placed a heavy burden on world oil markets.
>
> ...In short, the world is experiencing a major economic crisis brought on by decisions on the part of a small group of producing countries to raise the price of oil. The world has weathered each oil supply crisis, including the upheavals in Iran. But the economies of the industrialized world - including Canada's - have been shocked, to the point where their growth momentum of the pre-1975 decade has been halted, and in some cases reversed. (pp. 3-5.)

A closely related, major area of concern to Canadians was the degree of foreign, mainly U.S., control of the petroleum industry. This was hardly a new issue but it had taken on a special, and increasing, urgency after the 1973 OPEC price shock, which inaugurated a seemingly permanent era of unprecedented profitability for the industry. Consider, again, the views of the federal government:

> ...The effect of these price increases is a massive transfer of wealth, now and in the future, from consumers to producers. Most of these producers are foreign owned; the wealth transfer is therefore away from Canadians.
>
> ...Indeed, the loss may become permanent. Each year brings a further windfall gain to the foreign-owned firms. The value of these firms and, therefore, the cost to Canadians of securing control over them, has increased three- to four-fold -- equivalent to tens of billions of dollars. A further delay will put the value of companies in the industry so high as to make the cost prohibitive, leaving Canada with no choice then but to accept a permanent foreign domination by these firms.
>
> ...If this pattern were left undisturbed, foreign-controlled companies would account for a large part of the future energy supplies in Canada. The reinvestment of the cash flow earned by the foreign companies on their current production will help increase the size and influence of these companies. (Ibid., pp. 17-21.)

Even without this kind of official exhortation, a large-scale increase in the CDC's involvement in oil and gas, accomplished by taking over foreign-controlled assets, was to be expected. It would have been fully consistent both with its own primary objective of entering high-profit fields and with the national objective of increasing Canadian participation in a vital sector. The decisive change in the investment environment was induced by the National Energy Program that -- notwithstanding the reservations initially expressed by the CDC --

included, inter alia, the above-mentioned Petroleum Incentives Program. This program replaced certain tax incentives, which had tended inadvertently to favour foreign-controlled firms, with a system of subsidies to Canadian-controlled firms that were designed greatly to stimulate their exploration and development activities.

It is important to recognize, however, that the CDC was by no means unique among Canadian oil and gas firms in identifying a seemingly golden opportunity and then seizing it. Consider the contrasting situations with respect to foreign versus Canadian control of Canada's oil and gas producing industry, as they existed just before the advent of the National Energy Program and some two years later. They are presented in Table 6, which also lists major acquisitions by Canadian-controlled firms of foreign-controlled oil and gas firms in the wake of the Program. These data imply that, if the CDC had not acquired these particular assets -- which, like other foreign-controlled assets, had been placed at a severe disadvantage by the Program and whose owners felt unwelcome in Canada -- when it did, there is a possibility that some other Canadian-controlled firm, or group of firms, would have done so.

Another effect of the National Energy Program was to complicate the question of the current and future international flows of funds, in comparison with what they had been earlier (for example, when the CDC acquired Tenneco's assets in 1975). By withdrawing tax incentives that had tended to benefit foreign-controlled firms more than Canadian-controlled firms, and then replacing them with new incentives available only to Canadian-controlled firms, the Program made the

Table 6

Oil and Gas

Major Corporate Acquisitions, October 1980 to May 1982

	Name of Acquiring Company	Acquisition Date	Company Acquired	Purchase Price ($ millions)
1.	Petro-Canada	Feb. 1981	Petrofina	1,450
2.	Sulpetro	Apr. 1981	CanDel Oil Co.	536
3.	United Canso Oil and Gas Ltd.	Apr. 1981	Great Basins Petroleum Ltd.	164
4.	Dome Petroleum	June 1981	Hudson's Bay Oil and Gas (52%)	2,000
5.	Fairweather Gas Ltd.	June 1981	Alamo Petroleum Ltd.	213
6.	Fairweather Gas	June 1981	Amax Petroleum Ltd.	
7.	Husky Oil Ltd.	June 1981	Uno-Tex Petroleum Corp.	371
8.	Drummond Petroleum Ltd.	June 1981 June 1981	Union Texas of Canada Ltd.	101
9.	Canada Development Corp.	June 1981	Aquitaine Company of Canada Ltd.	1,600
10.	Turbo Resources Ltd.	July 1981	Merland Explorations Ltd. (50.75%)	132
11.	Ontario Energy Corp.	Oct. 1981	Suncor Ltd. (25%)	650
12.	Oakwood Petroleums Ltd.	Oct. 1981	Quasar Petroleum Ltd. (81%)	43
13.	Aberford Resources Ltd.	Feb. 1982	Marathon Petroleum Canada Ltd.	265
14.	Francana Oil and Gas Ltd.	May 1982	Sceptre Resources Ltd.	150
				$7,675

Total change in Canadian ownership 6.72%
Total change in Canadian control 10.83%

Source Energy, Mines and Resources Canada.

Canadian assets of foreign-controlled firms substantially less valuable to their foreign owners than they would have been in the hands of Canadians. Had these assets remained in foreign hands their future income flows -- which ultimately would have left Canada -- would have been less than the flows that they would have generated for Canadian owners. Presumably, the acquisition prices of the assets bought by the CDC (and the other indigenous purchasers) were somewhere between the present values of these two flows. Because they were diverted to Canadians, the assets' rates of return would, henceforth, probably be at least somewhat greater than they would otherwise have been. Therefore, those Canadians were rendered better off.

Against this, however, must be set the fact that a substantial part of the divergence between the assets' value to foreigners and their value to Canadians was due to the government subsidies that were made available only to the latter. These subsidies represented a transfer between Canadians, from the many taxpayers to the handful of asset owners; and, apart from their redistributive effects, they imposed substantial social costs in their own right.[10] Consequently, the answer to the question of whether or not Canadians as a whole became better off as the result of these government-induced, indigenous acquisitions of assets depends upon how the offsetting factors netted out. It is hard to say, *a priori*, whether the net effect was likely to be positive or negative.

Parenthetically, another divergence between the values of given assets to owners of different nationalities arises when the foreign owner is a multinational enterprise that does not operate its

Canadian assets at maximum efficiency. This is the well-known "truncation" situation. It arises when, say, the Canadian assets, being part of a multinational entity, are operated in the interests of the entity but less efficiently than they would be if the optimizing context were confined to Canada. If these assets are sold to Canadians, their price presumably would be above their value to their foreign owner but below their value to Canadians. If there are several competing Canadian bidders, the likelihood is that the price probably would be much closer to the latter value than to the former. Thus, here, too, the above argument applies: in present value terms the international flow of funds would remain more or less unchanged.

The Profit Performance

There are several reasons why it is not easy to analyze, either in its own terms or comparatively, the performance of the CDC's oil and gas holdings, as a whole, over the post-1975 period. As was indicated above, the size of these holdings increased dramatically in the wake of the National Energy Program. This increase and the radical changes in the environment combine to render inappropriate the pre- and post-acquisition comparisons that were made in the mining case. Secondly, the years in question were all characterized by inflation, mostly at high levels, and this opened up wide gaps between the nominal performance measures, which are available for analysis, and their far more meaningful, real counterparts, which probably do not exist. Thirdly, the period after the quantum increase in the CDC's involvement in oil and gas is short. Fourthly, the largest firms engaged in the production of oil and gas are integrated. That is to say, they operate in all phases of the industry, from production through refining to marketing, and the rates of return that are specific to their production activities are not ascertainable from public data. This severely constricts the possibilities for comparison, leaving only a small number of other firms of significant size in the production field whose performances seem relevant. But even they present difficulties, not least because their years of operation are not only few but are also unequal. And, as in the case of mining, the operational discretion of oil and gas firms' managements tends to be constrained by the geological and geographic characteristics of their particular holdings. Finally, some firms use the successful efforts method of costing their activities while others use the full cost method: the implications for earnings-measurement can be very considerable indeed.

In considering the profit performance of the CDC's oil and gas holdings it is obviously sensible to distinguish between the years 1976-80 and the post-1980 years. Over the first, five-year period, these holdings probably earned, as Table 3 and Table 7 show, more for the CDC's shareholders than the (relatively minor) funds involved would have earned, on average, if they had been invested randomly throughout the nonfinancial sector. (This seems to be a reasonable inference even though risk measurement is omitted, due to the brevity of the interval.) The opposite is true, by a decisive margin, of the 1981-82 years, when the amount of money at stake was far from minor. During these two years these funds earned nothing, nominally. (Their real, but unknown, earnings were undoubtedly negative.) Had they been dispersed throughout the nonfinancial sector they, like all equity funds during these years, would have earned less than before, but they would have earned something.

Table 7

Oil and Gas

After-Tax Rates of Return on Equity, 1976-82

	Canterra	Aquitaine	Dome	PanCanadian	Suncor	Oakwood	Sulpetro
				%			
1976	21.2	14.5	28.2	36.4	-	0.8	443.0
1977	28.9	13.1	29.3	44.9	-	15.1	(27.1)
1978	28.2	13.4	26.4	37.4	-	9.1	(11.0)
1979	22.6	11.4	23.0	33.2	21.7	(30.0)	0.0
1980	22.5	23.4	24.2	38.1	32.3	22.1	4.9
1981	0.0	-	13.8	27.2	4.6	31.6	(38.2)
1982	(0.7)	-	(28.0)	27.0	5.6	6.7	(117.7)
Average 1976-80	24.7	15.2	24.2	38.0	-	3.4	82.0
1981-82	(0.4)	-	(7.1)	27.1	5.1	19.2	(77.9)

Sources Annual reports.

This is the most important, and the most reliable, comparison to be made. For the reasons just mentioned, further comparisons are unlikely to be meaningful. Still, for what they are worth, the after-tax rates of return on equity of six other Canadian-controlled firms in the oil and gas production industry are listed, along with those of Canterra, in Table 7. (It proved difficult to find data for additional, like firms.) It seems fair to say that Canterra's predecessor performed about as well as most of its peers during the 1976-80 years, when the going was good, and also that Canterra performed about as badly as most of its peers when the going became bad, during 1981 and 1982. Unfortunately, there was much more at stake during the bad years than there had been during the preceding, good years.

Petrochemicals

Polysar

Petrochemicals is currently the second-largest area of investment by the CDC, involving assets in the vicinity of $2.5 billion. This is an area in which the CDC has been heavily involved from the beginning, since the acquisition, in 1972, of all the shares of the government-owned Polymer Limited. The CDC paid $62 million for these shares, the price being financed mainly by an exchange of shares. Polymer's name was thereupon changed to Polysar.

Polymer had been created, in 1942, by the federal government to produce synthetic rubber and latex, primarily for war-related purposes. When the war ended the government, according to Graham, declared that the firm would be allowed to continue operating, provided that it did so efficiently and earned a profit. During the next quarter-century, Polymer grew and diversified its operations, adding plastics to its traditional product line. It also developed extensive production and marketing facilities in a number of foreign countries.

As in the case of oil and gas (though for different reasons) it is not meaningful to consider the CDC's experience in the petrochemical industry on the basis of all the questions listed above. This is partly because Polysar does not seem to have any proximate peers in Canada. Hence, it is difficult to examine it in the context of a reasonably well-defined industry or compare it with other individual firms. Another difficulty is that it was never a private firm, nor one to which, except, perhaps, during the latter part of its Polymer phase, the conventional optimizing criteria could plausibly, and fully, be applied. Indeed, it would not be unreasonable to regard its sale to the CDC as an early exercise in (partial) privatization. Consequently, the main criterion against which the firm's post-acquisition performance will be considered is the familiar one of the corresponding performance of Canada's nonfinancial sector. To put this in a proper perspective, however, it is necessary first to look briefly at the firm's performance during the preceding, 1963-72 decade, at its market value at the time of its acquisition by the CDC, and at a joint venture in which it had agreed to participate, which was to have important effects upon its later fortunes.

Polymer's earnings for the benefit of its single, government shareholder, over the ten years preceding its acquisition by the CDC, are presented in Table 8. Its average after-tax rate of return on equity of 8.4 per cent cannot be described as impressive, since it is some 2 per cent below that of the nonfinancial sector, and its risk measure is higher. But it is also noteworthy that the price paid by the CDC represented only about half of the book value of the firm's shares. As to the motivations of both buyer and seller, Graham reported that:

> There are those who maintain CDC did not have an entirely free choice in this first major purchase. Polysar had been a thorn in the side of the government conceptually for many years, with the problem of whether it should go public or be sold to an outsider. Since the government was being a fairly anxious seller, if CDC had decided against Polysar, the favourable attitude towards the corporation might have changed. However, from the government's point of view it would have been hard to sell Polysar to anyone else. These are academic points because CDC *was* a willing buyer. While it recognized that petrochemicals was an industry dominated by world giants, it also saw that a Canadian presence could be both meaningful and profitable, since the country had the required basic energy resources and Polysar had the industry and international skills. In addition, petrochemicals were a vital component in Canada's economic development and Polysar, which was seen as potentially profitable, fitted CDC's mandate admirably. It was going to require further large-scale, long-term investment that might not be readily forthcoming from the private sector. In other words, it was going to require time and patience to develop further. It was distinctively Canadian and was the ready-made link in the launching of a Canadian-owned petrochemical industry. It was multinational, as well as export oriented. (p. 55, emphasis in original.)

Petrosar

Before considering Polysar's performance since 1972, it is useful to look briefly at the above-mentioned joint venture. Shortly before its acquisition, Polymer entered into a project with both Dow Chemical of Canada and Du Pont of Canada, to investigate the feasibility

Table 8

Polymer

After-Tax Rates of Return on Equity, 1963-72

	%
1963	11.8
1964	11.5
1965	11.0
1966	11.4
1967	4.9
1968	7.2
1969	13.0
1970	6.6
1971	0.7
1972	6.1
Average 1963-72	8.4
Coefficient of variation	0.44

Source Polymer Limited annual reports.

of providing a secure, moderately-priced supply of feedstocks for petrochemical-derivative manufacturing plants. The project was subsequently endorsed by the CDC, and it led, early in 1974, to the establishment of Petrosar Limited. The equity of Petrosar has been held, since shortly after the beginning, by three firms in the following proportions: the CDC/Polysar, 60 per cent; Du Pont, 20 per cent; and Union Carbide, 20 per cent.

Petrosar began production in 1978, and its performance, in terms of returns to Polysar (as distinct from its separate returns directly to the CDC) is presented in Table 9. This table shows that Polysar lost, or failed to earn, money on Petrosar in every one of these five years. These returns -- to which the CDC's separate losses must be added to form the full picture -- convey a sense of Petrosar's drain on Polysar, ever since the former began operations in 1978. In fact, the drain began around 1974, when construction began on Petrosar's facilities and continued, increasingly, until early 1978, when Petrosar began production.

Polysar's Overall Profit Performance

Returning to Polysar's overall performance, Table 10 presents its after-tax rates of return on equity for the years 1973-82, together with their average over the decade and their coefficient of variation. It is apparent that the CDC's acquisition of Polymer did not improve that firm's profitability. In fact, if we take cognizance of the high

Table 9

Petrosar

After-Tax Rates of Return on Polysar's Investment, 1978-1982

	Polysar's Share of Petrosar Net Income	Polysar's Investment in Petrosar	Polysar's Rate of Return
	$ Million		%
1978	(10.0)	95.1	(10.5)
1979	(6.2)	94.2	(0.7)
1980	0.9	97.9	0.1
1981	(1.1)	96.8	(1.1)
1982	(4.7)	128.1	(3.7)
Average 1978-82			(2.7)

Source Polysar Limited annual reports.

Table 10

Polysar

After-Tax Rates of Return on Equity, 1973-82

	%
1973	8.5
1974	12.7
1975	0.9
1976	3.7
1977	6.2
1978	7.1
1979	22.5
1980	21.0
1981	5.7
1982	(7.8)
Average 1973-82	8.4
Coefficient of variation	1.08

Source Polysar Limited annual reports.

rates of inflation that characterized the latter part of this decade, the CDC's earnings from Polysar were significantly less than those previously earned from Polymer by the federal government. The more important comparison, however, is, as always, with the performance, over the current decade, of the average firm in the nonfinancial sector. Here, too, the comparison is unflattering. If, instead of going into Polysar, the money had randomly been distributed over the nonfinancial sector, it would have earned an average return that was about 50 per cent higher than that which it earned from Polysar, and it would have borne lower risk in doing so.

Because the CDC held 20 per cent of Petrosar's equity and Polysar held 40 per cent, Polysar did not consolidate Petrosar's financial statements with its own (as it would have done if it had itself held a majority interest in that company). In 1983, the CDC set up a separate investment vehicle for its various petrochemical interests, and, in its 1982 annual report, it presented a consolidated summary of those interests going back to 1978. Table 11 presents the CDC's overall rates of return from petrochemicals over the period 1978-82. This table tells a similar story to that told by Table 10: the money would have performed much better if it had been spread throughout the nonfinancial sector.

The CDC's Minor Areas of Concentration

The four remaining areas of concentration of investment by the CDC are discussed under a single, overall rubric, not only because they

Table 11

Canada Development Corporation

After-Tax Rates of Return on Investment in Petrochemicals, 1978-82

	CDC's Net Income from Petrochemicals	CDC's Investment in Petrochemicals	CDC's Rate of Return
	$ Million		%
1978	10.3	217.6	4.7
1979	57.8	269.6	21.4
1980	74.1	333.1	22.3
1981	14.7	343.3	4.3
1982	(38.6)	347.9	(11.1)
Average 1978-82			8.3
Coefficient of variation			1.08

Source Canada Development Corporation, Annual Report, 1982.

all involve much less money than any of the three areas discussed above, but also because, for different reasons, their performances are best measured only against the one familiar criterion of how the money would have fared if it had instead been randomly dispersed over the nonfinancial sector. We begin by looking at the CDC's experience in the life sciences industry, which dates from its earliest days.

Life Sciences

In 1972, the CDC paid $25 million to the University of Toronto for full ownership of the Connaught Medical Research Laboratories. Connaught had operated, since 1913, as a nonprofit, tax-exempt component of the University, producing, first a diphtheria anti-toxin and, later, insulin, various blood products and vaccines. It was research-oriented, it sold its products at close to cost-price, and it put what little profit it earned back into research and fixed assets. By 1972, those assets were in need of upgrading.

The CDC's acquisition of this operation was as close as it ever came to starting a business from scratch, since its intention was to upgrade its facilities and reorient its activities away from quasi-academic pursuits and towards market pursuits. During subsequent years, Connaught, now part of the CDC's larger vehicle in the life sciences field called Connlab Holdings (later CDC Life Sciences), was joined by various other firms in the same broad field, operating both in Canada and abroad.

Table 12 gives the after-tax rates of return on equity earned by Connlab/CDC Life Sciences during each of the nine years from 1974 to 1982, inclusive. It also gives the average rate of return over the period and the coefficient of variation. At 3 per cent, this average is far below that of the nonfinancial sector, while the associated coefficient of variation is much higher. It should be noted, however, that the first half of the interval is distinctly the less profitable and more risky one. Nevertheless, even though Connlab/CDC Life Sciences has been becoming less unprofitable and risky, there is still quite a long way to go before its performance compares favourably with that of the average nonfinancial firm. It is hard to make any further comparisons, since Connlab/CDC Life Sciences also does not seem to have any proximate Canadian peers for its more important holdings. Nor, as was just explained, is the pre-acquisition track record of Connaught relevant to its post-acquisition performance.

Writing in 1976, Graham struck a sympathetic but gloomy and, so far, prophetic note:

> ...Hindsight is easy. Health care fitted admirably in CDC's distinctly Canadian terms of reference. I can appreciate the logic of CDC's selection and the temptation to buy probably the only major vehicle available. But in Connaught it may, regrettably, have backed the wrong horse and despite the numerous remedial steps that are being taken, I question whether the Connlab investment can ever meet CDC's criteria of 15% profit growth and return on equity.
>
> There can be no turning back on the total investment, or jettisoning of Connaught at this stage. I don't envy CDC its investment in health care and until proven otherwise seeing must be believing. (p. 73.)

Table 12

Canada Development Corporation

Other Investment Areas

After-Tax Rates of Return on Equity, 1974-82

	CDC Life Sciences	CDC Data Systems	Sentrol	Fishery Products
			%	
1974	(1.2)	-	-	-
1975	(5.1)	-	-	-
1976	1.1	-	-	-
1977	(3.3)	-	-	-
1978	9.6	3.2	-	-
1979	9.2	3.9	-	-
1980	6.1	0.1	-	(1.1)
1981	3.7	6.7	(26.7)	(39.6)
1982	6.9	(5.3)	(19.1)	(136.4)
Average over relevant years	3.0	1.7	(22.9)	(59.0)
Coefficient of variation	1.53			

Source Canada Development Corporation annual reports.

Information Processing

In mid-1978, the newly-created investment vehicle, CDC Data Systems, acquired a majority interest in three firms: AES Data Ltd., Wordplex Corporation, and Ventek Limited. All three had established themselves in the new, and burgeoning, word processing industry. The first was located in Canada, the second in the United States, and the third in England. (The CDC already owned a significant interest in the first two firms through its holdings in two venture capital firms, Innocan and Venturetek.) It is difficult to determine from available data how much the CDC paid for these acquisitions. Suffice it to say that the CDC's equity in CDC Data Systems went from $41 million in 1978 to $248 million in 1982. Even allowing for the high rates of inflation that characterized most of those years, this degree of increasing involvement is noteworthy. It also extended well beyond both the initial acquisitions and the word processing field. In 1982, the CDC made a particularly large outlay to acquire a 57 per cent interest in the U.S.-based Savin Corporation, a well-known producer of photocopiers. The CDC also made sizeable increases in the R&D programs of its holdings in these fields.

Given its chosen orientation, it is not difficult to understand why the Corporation decided substantially to enter the information processing industry (broadly defined) when it did. Few industries have been so marked by technological advance during recent years, and there existed ample grounds for believing that technologically-oriented entrepreneurs who were not afraid to take risks could, if things turned out well, make a lot of money. It is too early to judge whether the decision was a sound one.

Still, something should be said about the CDC's performance in this industry to date, however tentative. Consider CDC Data System's rates of return on equity for the five years 1978-82, which are listed in Table 12. Their average over the interval is only 1.7 per cent, their annual fluctuation seems high, and no single year's rate of return can be considered adequate, to put it no stronger. On the other hand, it is still relatively early days for those recent entrants into this dynamic area who have the will, the innovative bent, and the means, to stay the course. Although the determining factors are rather different in the two industries, oil and gas and information processing both have, in the light of their respective histories, an important common characteristic. That is the real possibility that the lacklustre performance, or worse, of yesterday and today will be followed by great success, if not tomorrow, then the day after.

Industrial Automation

Although its interval is shorter, the story of the CDC's involvement in the industrial automation industry has a good deal in common with the preceding one. In 1981, the Corporation acquired 85 per cent of the shares of Sentrol System Ltd., a computer-based controls producer in which it had previously held an indirect interest through its minority holding in Innocan. The price paid was $21 million. Sentrol's sales had grown remarkably during the preceding four years and its average annual rate of return on equity had been high. Its future certainly looked bright. This acquisition, however, like that of Savin, coincided with the onset of a recession. Consequently, here, too, the CDC has been losing money, as Table 12 shows. But, here, too, and for reasons similar to those pertaining to its other high-technology vehicle, the situation could change dramatically at any time.

Fishery Products

In September, 1980 the CDC acquired a 41 per cent interest in Fishery Products Ltd., which had begun operations in 1941. The price paid was $34 million. The company has been described as the largest year-round private sector employer in Newfoundland (having over 5,000 employees), and also as the largest of the four major fishing companies in the Atlantic Provinces. The CDC explained this acquisition in its 1980 annual report, in the following words:

> The Canadian fishing industry is benefiting from changes in international law that have extended the coastal limit to 200 miles. In addition, new federal government emphasis on conservation of this renewable resource ensures that the Canadian fishing industry will be able to keep pace with growing international demand. Thus, industry prospects are excellent.
>
> Fishery Products itself is carrying out a capital expansion program that, along with new retail marketing programs begun in 1980, is expected to result in greater growth and enhanced profitability in coming years. (p. 35.)

As Table 12 indicates, these prospects failed to materialize. Fishery Products lost increasing amounts of money each year from 1980 to 1982, inclusive. The CDC finally sold what was left of its equity in the company, in 1983, for an undisclosed, but undoubtedly small, price.

Venture Capital

CDC Ventures Inc. is the name of the wholly-owned subsidiary set up to administer the CDC's involvement in the venture capital field. Although it goes back as far as its earliest days, this involvement has always, as Table 1 and Table 2 indicate, loomed very small in the Corporation's scheme of things. Its chosen method of operating in this area has been to take (sometimes controlling, sometimes minority) equity positions in firms that themselves were venture-capital firms: i.e., they provided equity finance to other firms that produce goods and services. In 1982, the CDC had interests in seven such firms. Thus, it is in the venture capital business at one remove, and with varying degrees of involvement. Its gains have been expected to come, not from its shares in the returns on its equity in producing firms -- as they have (or have not) come on its equity in its other holdings -- but from the capital gains earned on the eventual sales, by the venture-capital firms, of their equities in them.

The CDC has reported its fortunes in this area, over its first decade, in a rather fragmentary fashion: hence, one can only surmise. It seems clear, however, that the Corporation has not fared very well from being involved with venture capitalists, certainly less well than it would have fared, on average, from randomly investing in nonfinancial equities.

1983-1985

The CDC changed its reporting policies after the 1982 fiscal year in ways that have made it impossible to calculate the respective rates of return of its investment vehicles. It therefore seems preferable to combine the reporting of its overall performance with brief, somewhat qualitative comments on the performances of the investment vehicles, so as to convey the flavour of the experience of the past three years. The year 1983 was an unprofitable one for the Corporation, although less so than the preceding year. It reported a negative overall rate of return of 4 per cent, while the nonfinancial sector reported a positive rate of return of slightly over 9 per cent. Canterra was the only "profitable" investment vehicle, in the sense that it earned a positive rate of return. Although Polysar also earned a profit, it was almost completely wiped out by Petrosar's loss. Kidd Creek almost broke even, and all the other investment vehicles earned negative rates of return.

The year 1984 was a distinctly better one for the CDC. It earned an overall rate of return of almost 7 per cent (the rate of return of the nonfinancial sector was over 10 per cent). If, however, allowance is made for the fact that a large part of its earnings came from the sales of various assets in life sciences and information processing, the rate of return on the CDC's overall operations is reduced to some 3 per cent. During this year, most of the investment vehicles earned positive rates of return, information processing and industrial automation being the main exceptions.

1985 was also a year during which the CDC, as a whole, operated in the black, but, even more than for 1984, there are significant qualifications to be recorded. The Corporation's overall rate of return was over 12 per cent, which is approximately 2 per cent higher than that of the nonfinancial sector. However, allowance must again be made for the gains realized on the sale of assets, and this makes a considerable difference. The CDC sold Kidd Creek to Falconbridge Limited, towards the end of the year, in exchange for an 18 per cent interest in that firm plus cash. The total price was $615 million. The transaction brought the CDC a book profit of $145 million. Some Canterra assets were also sold at a gain of $20 million. On the other hand, the Corporation's stake in Savin, amounting to $51 million, was entirely written off. All this means that the CDC's overall rate of return on its operations was only approximately 4 per cent. Canterra and CDC Life Sciences both earned positive rates of return, but the other investment vehicles all earned negative ones.

To sum up, the CDC continued, during these three years, effectively to fail to cover the opportunity cost of its equity. The same can be said of most, probably all, of its investment vehicles. Although, after 1985, it would still be involved in its most profitable investment area, mining, this would now take place at one remove.

Some Comments, Mitigating and Otherwise, on the CDC's Profit Performance

There is a certain temptation, when contemplating the CDC's earnings record over the past thirteen years in the context of its management's self-chosen criteria, simply to conclude that they were collectively hoist with their own petard. After all, they had set for themselves the primary objective of ultimately earning high profits, presumably by taking high risks. Although the high risks seem to have been taken, the high profits have not so far materialized. Quite the contrary. Hence, on this basis, the CDC, as a whole, must be judged to be a failure that, by any reckoning, cost Canadians hundreds of millions of dollars. While such a judgment would not be unjust, to say only that would be simplistic and premature. Even more seriously, it would fail to identify, let alone address, the questions that matter most from a policy perspective.

Before taking up some of these questions it is necessary, in the interests of clarity, to sort out various components of the CDC's unprepossessing earnings record. As was explained earlier, the years under review constitute a sufficiently long period for the short-term cyclical patterns of the Canadian economy to have worked themselves out. Consequently, averages and related measures derived over this interval, or over others not far from it, may be regarded as being reasonably undistorted by cyclical or random factors. But this is only true of the CDC as a whole and, since individual commodity groups tend to have distinctive cycles, of only some of its constituent parts. We must therefore make distinctions between those of its constituents of which it is true and those of which it is not. The CDC's involvements in information processing and industrial automation clearly fall into the latter category, and, so, for all practical purposes, does the one in oil and gas. The intervals covered by these involvements would be too short to permit strong generalizations even if the economy had performed on a reasonably even keel throughout. The fact that they coincided, wholly or partly, with a recession is all the more reason for caution. In a word, all the returns are not yet in. An analogously cautious approach should also be adopted towards the CDC's involvement in the venture capital industry, since it is in some ways a special case.

It is only with respect to the CDC's involvements in mining, petrochemicals and life sciences (all dating from the Corporation's inception) that we may properly ask: Were they worthwhile? Consider Kidd Creek (Texasgulf), the CDC's most profitable investment vehicle. As has been shown, there exist plausible grounds for concluding that, if this vehicle has not proven to be a big winner for the CDC, neither has it proven to be a loser. Such a conclusion would seem to apply to the 1973-82 decade, as a whole, and would derive from the near-equality between the firm's average rate of return on equity and that of the Canadian nonfinancial sector. But let us look a little closer at this decade's experience, since we know that a major change occurred in the nature of the assets around the eight-year mark. Recall that, in 1981, the CDC transformed its involvement in mining, via Texasgulf. Whereas, since late-1973, it had held a controlling, 30.3 per cent interest in all of Texasgulf's world-wide assets, that interest was exchanged, in 1981, for all of Texasgulf's Canadian assets. (An additional half-billion dollars was also paid to complete the transaction.) It is apparent (see Table 3 and Table 4) that the CDC slightly more than covered its opportunity cost with Texasgulf during the 1973-80 period, but it failed to do so with Kidd Creek during 1981 and 1982.

Another, and possibly more important, consideration arises from the fundamental change in the Corporation's involvement in the mining industry that occurred in 1981. At least in principle, there can exist a significant qualitative difference between a Canadian-controlled firm's acquisition of a 30-per-cent share of assets spread over several countries, of which a large proportion is located in Canada, and its 100-per-cent acquisition of the Canadian assets alone. The latter event is a clear case of Canadianization. Whether or not the former event also qualifies as Canadianization would depend upon whether a 30-per-cent interest implied control -- as it seems to have done in the present instance. It would also depend upon whether the multinational operation suffered from truncation -- as it seems not to have done. In any event, matters could always change in the future. A 30-per-cent interest in a corporation represents control only when the remaining shares are widely held. There could be no guarantee that such control would not someday be usurped by some foreign shareholder or group of shareholders. Similarly, truncation might develop in the future under various conditions in world markets served by geographically dispersed, and competing, sources of supply, all of them controlled by the same multinational enterprise. Adverse consequences for Canada from such an eventuality are presumably less likely to ensue if the resources located in Canada are fully-owned by Canadians. It could thus be argued that the 1981 transformation served Canadian interests.

On the other hand, the available evidence indicates that, though a U.S-based multinational enterprise with many holdings outside Canada, Texasgulf was always a good Canadian corporate citizen, especially insofar as the entrepreneurial spirit was concerned. There is no reason to believe that Canadian owners would have performed better, during the decade following the 1964 discovery at Kidd Creek, than its actual, American owners. Conversely, there is no reason to believe that Texasgulf would have performed better, between the CDC takeover of 1973 and the 1981 asset exchange, if it had remained under American control. It therefore seems fair to say that, notwithstanding the fact that its overall earnings record is distinctly better than that of any other CDC investment vehicle, Kidd Creek (Texasgulf) served Canada about as well before its Canadianization -- whether this is deemed to have been consummated in 1973 or 1981 -- as it did subsequently. Canada's international flows of funds presumably remained roughly unchanged in present-value terms, as did Kidd Creek's relative performance in its industry.

Taken purely in its own, profit-seeking terms, the story of the CDC's experience in the two other areas in which it participated from the start, life sciences and petrochemicals, is for the most part a litany of failure. It is also apparently a story of the CDC's entanglement in the possible tensions, which were noted earlier, between some of its own criteria. Recall the 1972 declaration of intention to build on Canadian strengths, focus on already-rapidly-growing dynamic enterprises...or undertake investments that involved upgrading resources. Certainly, Connaught's resources were in need of upgrading when the CDC acquired them, but the firm was hardly rapidly-growing or dynamic. The tension was probably less severe in the case of Polymer, but here, too, it is most unlikely, given that the firm's purchase price was substantially less than the book values of its assets, that the CDC's management imagined that they had acquired an established winner. What they undoubtedly sought to accomplish, in both these cases, was the transformation of a poor (or at best mediocre) track record into a superior (or at least good) one; and it is this that they have so far failed to do.[11]

To repeat, the CDC stands revealed, after these thirteen years of operation, as a failure by its own definition of success. Even though the returns are not yet in, in some cases, all but one of its investment vehicles have so far failed to earn enough to cover the opportunity cost of their equity. And, in the case of the single exception, the best that the CDC was able to do was to break even. It is, of course, true that profit-making firms usually serve society better than deficit-making ones, and it is also possible that the CDC's earnings record might have been better served by a less cluttered objective function. But the above austere finding would not necessarily have been replaced by an unreservedly favourable one if the Corporation's overall earnings record had been better -- not even if it had lived up to the original, high hopes of 1972 -- or if the CDC's criteria had been models of clarity and consistency. This is not so much because thirteen years is not a very long time in the life of a large and complex business organization, especially a new one. Though not lengthy, thirteen years' experience is still usually enough to permit reasonably tenable judgments about the overall performance of even new firms. Neither is it because there is always the chance that some new discovery, or some new crisis that restores OPEC's clout in world oil markets, could occur at any moment to transform Canterra into a bonanza. Nor is it due to similar, if rather less dramatic, contingencies relating to the CDC's involvements in information processing and industrial automation.

There are two reasons for ambivalence. First, it is inappropriate to base the validation or invalidation of an entire genre of enterprise only upon the profit outcomes of a few major decisions, be those outcomes happy or dismal. Second, and much more importantly, as will be argued below, it was fundamentally inappropriate to establish and operate the CDC along lines that afforded no additional bases for judgment. Put another way, it matters less, for our purposes -- although it certainly matters -- that the Corporation's management were not wiser than the stock market and usually picked losers instead of winners, than that they believed, and were allowed to believe, that the picking of such winners was to be their sole (or even principal) objective. For them to make this their top priority was to embark upon a course the ultimate success of which, in the Canadian context, was highly improbable, as will be seen. It was also to deviate from the mission that had been contemplated by the many Canadians who had campaigned for the creation of the Corporation, leaving most of it not only unfulfilled but also unattempted.

PART II

ANATOMY OF FAILURE

4 A RETROSPECTIVE LOOK AT THE CRITIQUE OF FOREIGN INVESTMENT IN CANADA THAT PROMPTED THE CREATION OF THE CDC

Now that the CDC's earnings track record has been set forth, it is necessary to review, more fully and critically than the earlier outline permitted, the arguments advanced by its proponents before the Corporation was created. This is done in the present chapter and in the next one. The purpose is to consider -- admittedly, with the wisdom of hindsight -- whether there was anything about those arguments that should have forewarned that the CDC's earnings performance was to be expected, or whether we should regard them as having been reasonably sound and the performance as an unfortunate, but fairly unlikely, development. Put another way, the purpose is to identify the factors that were purported to presage a profitable CDC and consider whether and, if so, to what extent they actually existed at the time. The arguments in favour of creating the Corporation were, however, advanced as part of a much wider critique of one of the most striking and problematical features of the Canadian economy namely, its enormous foreign presence. The CDC was conceived of as a partial remedy -- one among several -- of that worrisome situation. Since efficacy of prescription tends to depend heavily upon adequacy of diagnosis, it is necessary to consider this wider critique as well. As will be seen, the analytical approach that underpinned it was, in certain crucial respects, of a piece with the one that inspired the demand for the CDC. Their common inadequacies will not suffice to render inevitable the Corporation's subsequent performance, but they may go some distance towards rendering it less surprising.

The Large Foreign Presence in the Canadian Economy

By the end of the fifties, the foreign presence in the Canadian economy had become ubiquitous and, in more than a few areas, predominant. Table 13 gives an intermittent time series of total foreign direct investment in Canada between 1930 and 1967 that suffices to indicate order of magnitude and trend. After varying only slightly and remaining at moderate levels between 1930 and 1950, this investment trebled during the next decade to reach a total of approximately $13 billion. By 1967, its growth rate had abated somewhat, but it remained high, having accumulated to more than $20 billion. The American share was over 80 per cent throughout. Although, in the late-sixties, foreign-controlled firms represented only 4 per cent of all nonfinancial Canadian corporations, they accounted for 35 per cent of their assets and 47 per cent of their profits. They were, in other words, much larger and more profitable than Canadian-controlled firms, because they were either more efficient or members of more profitable industries, or both. Most of them were also wholly-owned subsidiaries. Table 14 indicates how foreign direct investment was then distributed. Although it was also significant in other sectors, it was particularly important in manufacturing and resources, representing 57 per cent and 60 per cent of total assets, respectively. The situation is amplified in Table 15. Foreign domination was particularly high in automobiles and parts (97 per cent), rubber (97 per cent), chemicals (78 per cent), and electrical apparatus (77 per cent).[1]

Table 13

Foreign Direct Investment In Canada at Book Value
(Dollar Figures in Millions)

	U.S.		U.K.		OTHER		TOTAL	
YEAR	$	% Total	$	% Total	$	% Total	%	% Total
1930	1,993	82	392	16	42	2	2,427	100
1939	1,881	82	366	16	49	2	2,296	100
1946	2,428	86	335	12	63	2	2,826	100
1950	3,426	86	468	12	81	2	3,975	100
1960	10,549	82	1,535	12	788	6	12,872	100
1967	17,000	82	2,152	10	1,547	8	20,699	100

Source Dimma (1973).

Table 14

Canadian Corporate Assets and Percentage of Foreign Control, 1967-68

	Total Value in 1967 of all Corporate Assets	% of Majority Non-resident Ownership in 1968
Agriculture, forestry, fishing, & trapping	.95	--
Construction	4.78	15
Transportation, communications, public utilities	2.16	--
Wholesale trade	8.40	28
Retail trade	6.12	21
Financial industries	79.40	13
Services	4.30	--
Manufacturing (including petroleum/natural gas)	39.46	57
Mining/smelting	11.07	60
TOTAL	156.64	

Source Dimma (1973).

Table 15

Control of Capital Employed in Selected Canadian Sectors

	Book Value of Total Capital Employed ($ Billions)	Canada % Controlled	Foreign % Controlled	U.S. as % Foreign % Controlled
Manufacturing, (ex petroleum/ natural gas)				
1954	8.3	49	51	80
1967	20.5	43	57	79
Petroleum/ natural gas				
1954	2.5	31	69	97
1967	9.7	26	74	81
Mining/ smelting				
1954	1.9	49	51	96
1967	5.2	35	65	86

Source Dimma (1973).

Given this predominance, it was to be expected that the warm welcome that had been accorded to foreign direct investment during the fifties (to say nothing of earlier eras) would increasingly give way, first to concern and then hostility, on the part of Canadian politicians, both in government and opposition, as well as on the part of political activists, intellectuals and other moulders of public opinion. Thus, in 1963, when Walter Gordon rose in the House of Commons to present his government's inaugural budget in all its nationalistic manifestations -- which included a proposal to establish the CDC -- large and important segments of Canadian society were in his philosophical corner, cheering him on. (Other segments, also sizeable and important, were as vociferously in the opposite corner.) But, apart from a few scattered, highly aggregated statistics and a great many ideologically inspired, qualitative assertions and counter-assertions, not much was known about how foreign control actually affected the behaviour of domestic firms.

The Mainstream Economic-Nationalist Approach: The Watkins Report

Among the various intellectual activities that were prompted by this situation was a study that the federal Privy Council Office assigned, around the beginning of 1967, to a group of academics designated the Task Force on the Structure of Canadian Industry. The task force was chaired, as was mentioned earlier, by Melville Watkins, and it submitted its report a year later. As the result of what was probably the most systematic analysis yet attempted of foreign direct investment in Canada, this report both echoed and shaped the then-ongoing debate. Together with Dimma's overlapping work (which encompassed and expanded upon it), it presented as full and coherent a statement of what might be termed the mainstream Canadian economic-nationalist analysis and program as has emerged. Its explanation of the evolution of the foreign presence in the Canadian economy and its perception of its pros and cons were the primary determinants of the outlook that economic-nationalists adopted on the contemporary and foreseeable Canadian economic condition. It also provided illuminating insights into the methodology and evidence that led them to adopt it.

This evidence and methodology are both of great importance to us, since they together produced the economic-nationalist assessments of the adequacy of indigenous entrepreneurial capabilities and the efficiency of Canadian capital, especially equity, markets. It was upon these assessments that the case for the creation of the CDC rested. If we are to come to grips with that case, we must begin with its foundations and the analytical modus operandi of its proponents. As will be seen, some of these foundations were factually solid but others were shaky. Some of the analyses were rigorous, but others were merely intuitive, sometimes to the point of being quite speculative.

One of the most striking features of the economic-nationalist evaluation of the impact upon Canada of foreign direct investment is its ambivalence. For all its ultimate anxiety about Canada's future if nothing was done to modify the excessive foreign presence in her economy, the Watkins Report was at pains to convey that the economic drawbacks that could attend the operations of Canadian subsidiaries of foreign parents are but one side of the coin. The other side consists of the reality of the economic growth that results from the inflows of the "product, technology, management, capital and market access" that collectively constitute foreign direct investment. Nevertheless, as potentialities, the drawbacks are both several in number and serious in consequence.

> ...the very inflows of inputs that come with foreign investment and create the benefits also tend simultaneously to generate costs or problems. The influx of senior personnel from the parent provides management skills of a higher quality; but the ease with which managerial and entrepreneurial skills can be imported may reduce incentives to improve these skills in the host country. Capital inflow increases aggregate saving and investment and the rate of economic growth; but the institutional development of a national capital market may be inhibited and the range of choice facing the investor reduced. The direct investment firm provides easy access for the subsidiary to the technology of the parent; but the latter is not necessarily the appropriate technology for the host country, and the potential to become a leader rather than a follower may be diminished. Foreign affiliation may provide an assured market for the subsidiary's output, particularly of raw materials and semi-processed goods; but, to the extent the taxation authorities do not ensure otherwise, the resulting "prices" may not result in maximum benefit for the host country. In manufacturing, the subsidiary gains access to the trademarks for tested products and the residents of the host country to the latest consumer goods; but the subsidiary may become simply an appendage of the parent, copying products for the domestic market and, in the unlikely event it is efficient, restrained from exporting, while the absence of distinctive national products may limit national advertising and impede the development of national media in the host country. (pp. 38-9.)

These (and other) economic disadvantages, which were elaborated in the report, are not the only burdens that foreign direct investment could impose upon a host country. It could also serve to diminish its sovereignty. During the sixties, for example, the United States imposed restrictions on the exports, not only of products produced domestically by American firms, but also of those produced by their foreign subsidiaries. Hence, "a host country which regards the freedom to trade of its corporations as consistent with its foreign policy objectives finds...the external manifestation of its political independence being undermined." (pp. 50-1.) This concern was expressed repeatedly in the report, as a kind of leitmotiv, to accompany the litany of the potential economic costs of foreign direct investment.

Another striking feature of the report is its uneven and, when it matters most, avowedly inadequate empirical content. This is a deficiency of no small importance in a study of problems that can hardly be addressed, much less resolved, unless approached with an awareness of the directions and orders of magnitude of the effects of the relevant factors. Admittedly, estimates of the overall impact of foreign direct investment on Canada's economic performance were provided, which indicated that up to the beginning of the sixties it was both significant and positive. But its subsequent impact, which was central to the debate, was declared to be largely unknown. (This prompted the task force to urge, as one of its main recommendations, that the government take determined action to develop and maintain a data base on the operations of foreign-controlled domestic firms designed to facilitate proper analyses of their multifarious effects.) Unfortunately, the judgmental caution implicit in such a forthright acknowledgment of ignorance and call for measures to dispel it, was elsewhere subordinated to an approach that was much less rigorous and a readiness to make recommendations that was much less circumspect. This lack of rigour is illustrated by the report's discussion of the economic costs of foreign direct *investment. They were reiterated* as potentialities so frequently and described so fully that they tended increasingly to seem actual, with the result that the phenomenon of foreign direct investment drifted increasingly into bad odour.

The process consisted in setting out various aspects of the behaviour of the Canadian subsidiaries of foreign (mostly American) parents and then suggesting that, however rational they may be in the context of a multinational operation, they may be disadvantageous to Canada, or less advantageous than they would be in a different policy environment. Or, if neither of those objections arose, they were said to encourage Canadians to remain dependent upon foreigners, in a comfortable, but ultimately debilitating, state of economic adolescence. Some examples of such behaviour were cited above. Others include the possibilities that managers of subsidiaries are constrained in taking initiatives -- they become habituated to "thinking small" -- and that inter-affiliate pricing arrangements deprive Canada of tax revenues. In any event, it was maintained that the very presence, on such a large scale, and in so many industries, of these subsidiaries, tends to inhibit, if not prevent, Canadians from developing their own indigenous managerial and technological capabilities.

None of this was intended to suggest that Canadians are the hapless, long-suffering victims of foreign intruders who have somehow managed to impose themselves upon reluctant hosts. It was carefully explained how the tariff, together with an indigenous lack of financial and entrepreneurial resources, created vacuums that foreign investors filled by default. Had foreigners not built the factories -- albeit as branch plants -- or undertaken the large, risky, resource-based projects, which often had deferred payoffs, they would not have been built or undertaken until much later, if at all. But, as always, there was the other side of the coin.

> While this greater capacity to bear risk generally works to Canada's advantage, this need not always be the case. Multinational firms may also take a longer-run attitude to exploiting the primary resource after proving it up to the extent that they have alternatives elsewhere. Or, in secondary manufacturing, if an error has been made in terms of over-investment in a relatively inefficient sector, it may take longer to correct it if the staying power of the parent firm is particularly strong. More generally, the greater risk-bearing capacity of the foreign firm may be simply the other side of its monopoly power, and the latter is never an unalloyed blessing in terms of either consumer welfare or national policy. (p. 77.)

In spite of its pronounced tendency to cast the operations of foreign-controlled firms in an unfavourable light, by detailed specification of their potentially deleterious effects, the report was very cautious in its approach to alleviating matters. This was probably the result of the task force's recognition of the informational desert -- the rectification of which it strongly recommended -- that surrounded its investigation. Thus, the report did not venture much farther than advocating tariff reduction, more effective Canadian anti-combines policy, and more equitable tax rules vis-à-vis Canadian- and foreign-controlled domestic firms. The clear intent of these recommendations was to foster the evolution of a more efficient, and therefore more competitive, domestic industrial sector and of a better deal for Canadians from the operations of foreign-controlled firms. Certainly, few, if any, punitive measures against those firms were contemplated. Nor was anything resembling a buy-back program advocated, if only because of the enormous sums of money that this would require. (The mere taking of significant minority positions by Canadians in the larger foreign subsidiaries -- which was not recommended -- was estimated to require at least $3.5 to $4.5 billion, in 1986 dollars!)

It was when it took up what might be termed the preventive, or, at least, the inhibitive, adverse consequences of foreign direct investment -- which were of fundamental importance to the case for the creation of the CDC -- that the report most frequently abandoned the advocative restraint that evidentiary deficiency imposed in other areas. This syndrome is well illustrated by its treatment of Canada's performance in the field of technological advance (which also entered into the case for creating the CDC). It is worthwhile to devote a few words to it, since an analogous syndrome is very much in evidence where the CDC is concerned.

As a beginning, statistics were presented to show that Canadian expenditures on nondefence R&D compare poorly with those of other, comparable countries. The Canadian complement of engineers per population was also shown to compare poorly, as was its proportion of domestic patents taken out by foreigners. From this, it was concluded that an especially serious "technological gap" exists in Canada. Brief consideration was then given to whether the uniquely high level of foreign direct investment in Canada accounted for the existence of this gap, since foreign-controlled subsidiaries have access to their parents' technology. It was noted that the availability of foreign technology, albeit at a price, could prompt domestic firms to refrain from incurring the higher costs of their own R&D. It was further pointed out that foreign-controlled subsidiaries undertake relatively more R&D than Canadian-controlled firms, which suggested that Canada probably "benefits more from what it pays for foreign technology than it would for [sic] spending the same amount on R&D in Canada." (p. 96.) In other words, foreign direct investment was not held to be the overt villain of the piece. But the report immediately went on to say that:

> A superior explanation of the Canadian deficiency, with implications for Canadian policy, is that the nature of Canadian society has not been conducive to the undertaking of R&D. The latter capacity is, like entrepreneurial ability, not a surface characteristic but rather is deeply rooted in society. The Canadian neglect of higher education in particular and the narrowly-based character of private and public élites in general...has [sic] both reduced the supply of scientists and engineers and, by lowering the quality of domestic managers and increasing the conservativeness [sic] of governments, decreases the demand for their service even more. In this context, the very ease with which Canada has been able to obtain technology through the route of the direct investment firm has reduced the pressure that might otherwise have been exerted, particularly on governments, to sponsor more R&D in Canada, including more industrial R&D performed by industry. (pp 96-7, emphasis added.)

Thus, in the end, although it was not held directly responsible for the existence of Canada's technology gap, foreign investment did not escape censure. It has shielded Canadians from the full consequences of their inappropriate educational system and overly-rigid social structure. It has, in effect, done them the disservice of saving them from themselves.

The report then went on to suggest that policies designed to improve the overall Canadian economic environment would tend to enhance both the supply and demand for R&D. More specifically:

> ...Within that context consideration can be given to how best to allocate an increasing level of R&D; reasonable objectives would include strengthening traditional export industries, supporting industries which are predominantly domestic-owned [sic] so as to increase their efficiency and to reduce the probability of foreign take-over, and insisting on Canadian benefit from government-subsidized research, that is, supporting firms without respect to ownership but requiring that any resulting innovation be exploited in Canada or the subsidy be repaid. (pp. 97-8.)

To say that the foregoing argument leaves much to be desired is not to be sanguine about the phenomenon of foreign direct investment nor about contemporary levels of domestic technological innovation. Nevertheless, both the specification of the problem and the prescription of its remedies are highly questionable. What makes that relevant to our purposes is the fact that the thinking behind them has a good deal in common with that behind the call for the CDC.

First, there is the question of the existence of the "technology gap," which is at the heart of the matter. It was simply declared that all countries other than the United States experience such a gap, and that Canada's is unduly wide (in view of her comparatively low spending on R&D, etc.). Apart from being based upon an unhelpful contrast with the United States, this kind of conception borders on the vacuous. As is explained below, when other ostensible gaps are discussed, it is essentially metaphysical -- its existence cannot be disproven. Hence, it cannot be proven either, simple comparisons notwithstanding. Unless great care is taken, designing and implementing policies for narrowing such a "gap" can resemble tilting at windmills. The report did not take such care. This is obviously not the place to go into the question of how the government could best foster more innovative activity by Canadians, in order to narrow a "technology gap." The Economic Council of Canada recently had something to say about that.[2] Nevertheless, it must be pointed out that the notion that such a narrowing is appropriately accomplished by favouring export industries over industries whose output is mostly consumed domestically flew in the face of then-available research.[3] As for the other proposed remedies, they are woolly in the extreme. Which industries are predominantly domestically-owned (how much domestic ownership must there be for it to be predominant?), and by which means should they be supported? In view of the many pejorative references to tariffs -- a standard device for supporting favoured industries -- in the report, it is unlikely that these were being advocated. This leaves tax incentives, subsidies, and the like, and these, in turn, take us into the complex and contentious realm of industrial policy. Although -- apart from a few, brief comments on this subject in the last chapter -- it, too, is beyond our scope, it must be said that, as is confirmed by a voluminous literature,[4] this variant of the perilous art of picking winners is, like the other variants, strewn with pitfalls. Few of these pitfalls received recognition in the report.

To return to the case for the creation of the CDC, its main pillars rested on the urgent need to narrow two analogous "gaps." Like the "technology gap," the perpetuation of these gaps was largely attributed to the benefits that Canada has derived from foreign direct investment. The report acknowledged that Canada's capital market has become large and sophisticated, but it also maintained that it contains gaps, especially where "entrepreneurial capital" is concerned. Entrepreneurial capital was defined as capital that is "allied directly with entrepreneurial skills and takes an active part in the development and management of enterprises in which it invests." Put another way, the question was whether Canadian financial institutions mobilize enough domestic savings for the purpose of entrepreneurial investment: the report maintained that they do not. The responsibility for this unsatisfactory situation was not attributable to most Canadian financial institutions, which are either primarily lenders, like banks, or passive investors in diversified portfolios, like mutual funds, pension funds, and insurance companies. It was attributed, at least in part, to the underdevelopment of Canadian closed-end funds, as a group.

Closed-end funds were described as corporate entities that issue their own securities, in order to finance (usually controlling) holdings in other firms, under conditions that enable those firms to receive, not only cash, but also entrepreneurial and management skills. Although, as a group, these institutions have grown in Canada during recent years, they have done so at a much lower rate than most other domestic institutional suppliers of equity finance. This allegedly has occurred because closed-end funds face handicaps that cause their shares to sell at prices substantially below the aggregate values of their investments. The report recommended changes in Canadian law, to bring it more into line with American law, which would enable Canadian closed-end funds to play a more important role as suppliers of equity capital and entrepreneurial services.

Another, more direct measure to improve Canadian entrepreneurship was also recommended so that Canada's dependence on foreign multinationals could be reduced. Canada must, in effect, develop indigenous equivalents. Some already-existing, large Canadian-controlled firms compare favourably with any in the world, and they could provide part of the solution.

> But more is needed. Few Canadian companies can hope to attain the size of a number of the existing giant foreign-based firms and have the capacity to undertake the projects that fall within the purview of giant firms. Canada is not so well endowed with entrepreneurial talent that it can afford to spread it thinly across a broad front. By concentrating this scarce resource to some extent, it would become possible to initiate projects that might otherwise go by default to foreign corporations. The "technological gap" alleged to separate most of the world from the United States may, in fact, be largely a "managerial gap." Even when American leadership is based on technological superiority, the relevant issue is how to speed the diffusion of techniques, and the process of "creative imitation" hinges critically on the quality of local entrepreneurship. Also, experience elsewhere suggests that it is politically undesirable to concentrate too much economic power in the hands of large private companies, however competently run. *These considerations suggest that a case can be made for a new institution along the lines of the much-discussed Canada Development Corporation*.
>
> *From this perspective, the proposed Canada Development Corporation should be a large holding company with entrepreneurial and management functions, assuming a leadership role in Canada's business and financial community in close cooperation with existing institutions. It would be a Canadian analogue to the giant American corporation. Its size and its quasi-public character would enable it to make a unique contribution in organizing consortia of investors, domestic and foreign, thereby carrying out large projects beyond the capacity of a single institution and throughout maintaining a clear Canadian presence. Its capacity to draw on the expertise of the financial community and to provide a focal point for the mobilization of entrepreneurial capital would help to meet what is presently a major flaw in the Canadian capital market, namely, that rising Canadian ownership of equity securities does not appear to be matched by rising Canadian control. Its existence would mean an additional vehicle for the investment of Canadian savings with assurance of a Canadian presence in decision-making*. (pp. 273-75, emphasis added.)

Here are most of the elements of the case in favour of creating the CDC, together with their underlying, implicit assumptions about the Canadian economy, especially about its equity and entrepreneurial markets. Existing Canadian firms are too small and Canadian entrepreneurs too unsophisticated to conceive and execute the large, complex and risky projects that giant multinationals characteristically undertake. There is so little indigenous entrepreneurial and managerial talent in Canada that it would be ineffective if dissipated among too many firms operating in too many fields. On the other hand, if it were to become concentrated among the requisite few, large corporate structures, and these were private, that, too, would be undesirable: it would concentrate too much power in too few hands (most Canadian industries are already oligopolistic). The CDC, with its mix of government and private Canadian shareholders, could perform the essential entrepreneurial role, without being subject to the drawbacks that would inhere in an entirely private, correspondingly large equivalent.

It is worthwhile to pause briefly to record some concerns that will be further developed later. The foregoing offers no explanation as to why existing Canadian-controlled firms have not already merged their resources to undertake the kinds of projects in question (thus leaving them for foreigners). Nor is the possibility entertained that, in a firm like the proposed CDC, the interests of the government shareholder -- who would exercise control, at least at first -- might not, or not always, coincide with those of the private shareholders. Also, although the report clearly indicated that the willingness of foreign multinationals to accept deferred payoffs from their large, risky projects had contributed significantly to their evolution into major players on the Canadian scene, no such necessity was imposed on the CDC. It was not stated in so many words, but the report did not discourage, to say the least, the notion that there currently existed more-or-less immediately-profitable projects, which were hanging fire, awaiting the attention of the CDC. The element of time was also disregarded. That prevented the report from considering whether the indigenous entrepreneurial talent that the CDC would mobilize (along with commensurately large pools of domestic savings) might need some time to learn the ropes of the big leagues, a process that inevitably entails making the mistakes that are an integral part of learning-by-doing.

The report went on to note that, during recent years, the large inflows of American direct investment into Canada have been accompanied by substantial investments by Canadians in American equities. This was seen as being further evidence of the inadequacy of Canadian equity markets. Due to various tax-related considerations, there was said to exist a shortage of comparably attractive Canadian equity issues, especially in the growing electronic and other high-technology industries. Matters were said to be further aggravated by the long-standing presence in Canada of numerous private corporations and wholly-owned subsidiaries of foreign parents, none of whose shares are traded. This situation was expected to worsen if nothing was done. Hence, the report favoured incentives to the larger private Canadian companies to float public equity issues and encouragement of foreign subsidiaries to offer their equities to the (Canadian) public. Since such measures would serve to increase the supply of domestic equities, it was admitted that they were in potential conflict with the equity requirements of the CDC. Nevertheless, both the measures and the CDC were deemed necessary, the latter to alleviate a fairly pervasive, inadequate supply of "entrepreneurial capital," the former to alleviate inadequate Canadian equity-holding in important industries. Together, they would also serve to broaden the range of choice available to Canadian investors.

The remainder of the report was largely concerned with the political implications for Canada of large-scale foreign direct investment. It was argued, in effect, that whatever the nature, direction and magnitude of its net economic impact, its impact upon real (as opposed to merely formal) Canadian sovereignty has been both substantial and negative. Indeed, it is fair to say that the report's critique of foreign direct investment in Canada reflected an even greater and more urgent anxiety about its political impact than about its economic impact. It is noteworthy, however, that the possibility that measures designed to mitigate the sovereignty damage, however desirable they may be, would involve economic trade-offs, was not explored.

The Watkins Report Summarized

Since the report exemplifies so much of the thinking that produced the CDC, it is useful briefly to summarize its basic approach and policy thrust. The Canadian industrial sector was viewed as being largely composed of more-or-less oligopolistic industries whose dominant firms were few enough to preserve oligopoly but not large and efficient enough to be competitive in world markets. Thus, Canadians have tended to have the worst of both worlds. Canada's situation is complicated by the fact that so many of the larger oligopolistic firms are subsidiaries of foreign parents, which had only found it worthwhile to invest in Canada because of the tariff. Although the probability was clearly recognized that many, if not most, of these firms would otherwise not have been established at all, or not until much later -- given Canadian deficiencies of entrepreneurial and financial wherewithal -- it was strongly intimated that foreign direct investment has also imposed a variety of costs through inappropriate resource allocations. In addition -- and even more importantly -- simply by alleviating their effects, it has tended to perpetuate the very deficiencies that caused Canada to throw open its economy to foreigners in the first place.

For all its anxiety about the future, the report advocated very few measures that could fairly be described as discriminatory, let alone punitive, where foreigners were concerned. Instead, most of its policy emphasis was upon making the Canadian economy more competitive, making the Canadian tax system more equitable as between Canadian- and foreign-controlled firms, making domestic capital markets more supportive of both Canadian suppliers and users of equity finance, encouraging Canadian-controlled firms to remain so, and assisting large domestic projects to be both financed from domestic savings and undertaken by Canadians. It was in these last two areas that the CDC was envisaged as having a particularly significant role to play.

It is noteworthy, however, that while the report was restrained by evidentiary deficiency from presenting judgments about the actual, as opposed to the potential, costs of foreign direct investment (in fact, one of its main recommendations was for action to remedy this deficiency), no such restraint was shown where the Corporation was concerned. The necessity and feasibility of its assigned functions were confidently asserted. As to opposing, or at least questioning, opinions, their existence was not even acknowledged; still less was their substance taken into consideration.

The Gray Report's Conception of the CDC's Role

Another relevant, major intellectual exercise pertaining to foreign direct investment in Canada was undertaken a little later, in 1970, by a working group reporting to Herb Gray, a federal minister with a history of concern about the phenomenon. The working group reported in 1972, after the CDC had been established. Although its report obviously had no impact upon the debate leading up to the emergence of the CDC, its members were undoubtedly aware of it. Since, according to Dimma, the Gray Report exerted some influence on the role that the CDC set for itself, a portion of its contents, which explicitly refers to the Corporation, is worth presenting.

> The most recent response of the Canadian government to the growing degree of foreign control has been the introduction of legislation to create the Canada Development Corporation (CDC), which was approved by Parliament in 1971.
>
> The purposes of the CDC are to help develop and maintain strong Canadian controlled and Canadian managed firms in the private sector of the economy, and to give Canadians greater opportunities to invest and participate in the economic development of Canada.

> The CDC will seek to achieve its first objective by investing in the equity of existing corporations, by assisting in the expansion and establishment of significant new enterprises and in the expansion of existing ones. In doing so, it will normally invest in enterprises in which it expects to have a substantial holding of shares carrying voting rights and in which the total value of the shareholders' equity will be, or is likely to become, $1 million or more. It is expected that the CDC's investment in another business will normally be large enough, either alone or in combination with other Canadian investors, to ensure Canadian control....
>
> The CDC is expected to work very closely with other members of the Canadian business and financial community, concentrating the exercise of its own direct entrepreneurial functions in those areas of peculiar promise and interest to the Canadian economy where there is not otherwise likely to be a sufficient degree of Canadian participation. In this connection, it will be recalled that in the discussion of capital markets above, emphasis was placed upon the lack of entrepreneurship in the financial institutions. As now contemplated, the CDC seems likely to concentrate its activities on the gaps in the capital markets for large resource projects and for fairly substantial investments, rather than for smaller venture capital situations....
>
> The CDC may give special attention to industries considered to be of greatest potential and importance to Canada's future economic development. It may emphasize areas involving the development and application of new technology, the exploitation and utilization of Canadian natural resources, those of special relevance to the development of the North, and those areas in which Canada now has or can develop significant comparative advantage by international standards. In doing this, it may help to secure for Canada the headquarters of Canadian-based multinationals which might otherwise be pulled from their Canadian roots. Simultaneously, the Corporation may help overcome the danger of the orientation of Canadian multinationals gravitating gradually to those countries where the largest market is located (usually the United States).
>
> The CDC is not expected to make investments which do not meet its criteria for profitability. This means that there are limits to what the CDC can be expected to accomplish in promoting greater ownership and control of the economy by Canadians. If the Canadian government and people attach high priority to more Canadian ownership, other measures obviously will also be needed. (pp. 326-27, emphasis added.)

Thus, the report echoed the widely-held view that existing Canadian financial institutions are insufficiently entrepreneurial. This deficiency was attributed to their alleged tendency to be even more risk-averse than Canadians are, as individuals. The report's endorsement of the CDC's profit constraint clearly implies that the working group shared the confidence of the CDC's other proponents that the pursuit of the Corporation's objectives was compatible with the concurrent earning of a competitive rate of profit.

5 ENTREPRENEURIAL AND CAPITAL MARKET GAPS...AND THE CDC

The frequently-advanced contention that there exists an entrepreneurial gap in Canada was articulated most fully by Dimma. What he held to be lacking is an adequate indigenous capacity to produce a composite commodity consisting of both money and skills. The money is in the form of equity financing; the skills consist of the multifaceted ability to recognize good investment opportunities and then organize the financial, technological, and human resources required for their successful realization. This composite commodity is in short supply because, due to the long-standing, large and frequently dominant foreign presence in the economy, domestic capital markets are incapable of channelling enough domestic savings into the hands of indigenous entrepreneurs to generate the levels of investment necessary for the levels of GNP that Canadians desire. That incapacity, in turn, compels still further reliance upon foreign direct investment, which necessarily worsens an already serious situation.

The problems mostly exist in three areas: venture capital for small, new and technologically-innovative firms, expansion capital for medium-sized firms, and financing for large, capital-intensive projects subject to deferred payoffs. The first problem contributes to an inadequacy of domestic technological innovation. The other two -- the ones most pertinent to the CDC -- contribute to increased foreign control of domestic firms (as the owners of medium-sized firms are often compelled to sell out to foreigners) and increased foreign domination of domestic industries (as the large-scale opportunities are often left, by default, for foreigners to exploit).

These problems were not held to be rooted in an inadequate domestic propensity to save. During recent decades, Canadians have been saving at relatively high per-capita rates, and they have also been putting relatively high proportions of their savings into equities. If anything, it is the supply of new Canadian equity issues that has been insufficient, relative to demand, since the majority of the largest Canadian corporations (of which 80 per cent are foreign-owned) have no public shareholders. It appears, however, that most of the indigenous demand for equities has been for portfolio purposes; there has been a relatively low level of demand for direct-investment equities. In any case, Canadian investment holding companies find themselves in the same situation as closed-end funds -- their shares, too, tend to sell at a discount. Thus, like the closed-end funds, they are inhibited from playing their full role in converting domestic savings into domestic investment. These circumstances, together with the inability or unwillingness of the rest of Canada's oligopolistic financial sector to supply adequate equity finance to Canadian-controlled firms, are responsible for the relative inefficiency of Canadian capital markets.

Although the links were not clearly spelled out, Dimma explained the persistence of this situation by contending that Canadian entrepreneurial, managerial and technological capabilities are inadequate. As was just indicated, the first of these functions involves the ability to perceive opportunities and bring together, in an organized way, the funds, management and technology to take advantage of them. This is the gap that constitutes the main stumbling block to the evolution of a more autonomous Canada. It was attributed to the national inferiority complex that was long inherent in her colonial status, and, more familiarly, to an educational system that is less pragmatically-oriented than those of more dynamic societies (like the American) and a restrictive pattern of social mobility that produces an inadequate supply of talented individuals. Similar factors were adduced to substantiate the existence of a managerial gap, supported by data showing that Canada has lagged far behind the United States in the per-capita education of engineers and business-oriented professionals. Matters were said to be made even worse by the fact that so many domestic branch plants are truncated operations. Thus, Canadians tend to receive less experience and on-the-job training, and to exercise less initiative than is desirable from the national standpoint. As to the technological gap, Dimma's explanation of its existence was summarized earlier, in the discussion of the Watkins Report. It prevents domestic firms from meeting their technological needs on the best possible terms, free of the entanglements that tend to accompany foreign direct investment.

It was in the aggregation of all these arguments that the proposed CDC found its raison d'être. It would help fill these gaps -- especially the first, crucial one -- with Canadian savings, by accomplishing in Canada, under a single roof, what investment holding companies, venture-capital companies, and merchant banks collectively accomplish in other countries. Although Gordon and other proponents of the CDC did sometimes speak of the long-run (as opposed to the short-run) profitability of the CDC's projects and of the need to avoid the expectation that it would pay early dividends, they emphasized more frequently that it would satisfy the normal expectations of its private shareholders. Just as the public would apply normal investment criteria in contemplating CDC shares, so would the CDC be guided in its investment policies by regular commercial and financial criteria. In other words, there were few expressions of doubt on the part of the CDC's proponents that it could accomplish its mission without sacrificing profits, at least for some time. The contrary view was affirmed and reaffirmed.

On the "Efficiency" of Canadian Equity Markets and the Opportunities for Picking Winners (especially by Conglomorates)

The foregoing analysis of the Canadian situation, and its concomitant case for the establishment of the CDC as a partial remedy, did not, of course, go unchallenged. The challenge -- which was well formulated by Neufeld and briefly summarized earlier -- was partly prompted by skepticism about the reliability of the government's repeated assurances that the CDC would not be used as a device for implementing socio-economic policies in defiance of market forces. To use it in such a fashion, critics argued, would inevitably saddle its private shareholders with losses, in the interests of objectives that they had not, as shareholders, agreed to pursue. Serious concern was also expressed about the CDC's ability to earn competitive profits while pursuing its stated objectives, especially in the light of Gordon's ambiguity on the subject. At the heart of this fundamental issue was the question of whether the Canadian capital market gap that the CDC's proponents had invoked really existed to the extent claimed or, indeed, at all.

Neufeld (1966a) put the issue plainly.

> Are there economically justifiable development projects (i.e., projects with relatively attractive earnings prospects) that would go forward but for the lack of large amounts of equity capital, or that are going forward simply because foreign equity financing is available while Canadian equity financing is not? Are there relatively large Canadian companies that have been, or will be, sold to foreign investors at a price that would be attractive to Canadian investors if only sufficient amounts of Canadian equity capital were available to prevent the takeover. And if the answer to each of the preceding two questions is yes, would the CDC be able to mobilize the amounts of capital required? (p. 13.)

He went on to quote with approval the recent Royal Commission on Banking and Finance. It had found that, although major export-oriented resource projects were sometimes too large and too risky for Canadians to undertake -- and were therefore left for foreign entrepreneurs -- the problem has been diminishing. Its proposed remedy for such problems as might remain consisted, not in creating a new institution, but in encouraging Canadians and Canadian financial institutions, especially life insurance companies, to hold more Canadian equities.

Like those who took less optimistic views of the adequacy of Canadian capital markets (such as Gordon, Watkins et. al. and Dimma, to name but these), the members of the Royal Commission and Neufeld (as well as others) based their judgments on a combination of inferences from the observed structure of Canadian capital markets and the opinions of various participants in them. Few, if any, of the disputants based his position on a clear and consistent definition of a capital market gap. Neufeld was more precise, and also more cautious, than most. He defined a Canadian capital market gap as a situation in which Canadians, as individuals, and/or Canadian financial institutions "were ignoring profitable opportunities for investment in Canadian business and business opportunities." (p. 31.) As has been seen, he called for government-financed research to ascertain whether such a gap currently existed to a significant degree in Canada and, if so, whether foreign direct investment resulted therefrom. If this research answered both questions in the affirmative, he envisaged a CDC that would initially act as a kind of broker, operating to close the gap by bringing together "Canadian business and existing Canadian investing institutions." Only after experience had shown that mere brokerage activity was insufficient would the CDC be permitted to act as an investment company in its own right.

The CDC's proponents subscribed to less well-defined notions of a capital market gap. Gordon had spoken of an indigenous inability to finance large, risky projects having deferred payoffs, but his main emphasis had been on the need for the CDC to satisfy the commercial criteria that its private shareholders would normally apply to investments. This clearly implied a belief on his part that, without the CDC, some competitively-profitable domestic ventures would either remain neglected or would be undertaken, by default, by foreigners. This belief was shared by the other proponents of the CDC, but they tended, to varying degrees, to encompass it in the broader conceptions of entrepreneurial/managerial/technologically-innovative gaps. As has been seen, they envisaged that the CDC would serve as an organizational framework within which Canadian talent would be gathered together to undertake profitable ventures financed by domestic savings. This approach did not merely imply that profitable ventures were currently going begging or were being left for foreigners. It also implied that more efficiently-marshalled Canadian talent would be capable of profitably undertaking domestic projects that existing Canadian-controlled firms or financial institutions would not consider worthwhile.

To repeat, most of those who held this view did not seem to doubt that significant progress in closing these indigenous entrepreneurial/managerial/technologically-innovative gaps could be made in fairly short order. That, presumably, is why they displayed so little anxiety about the CDC's ongoing ability to attract and retain domestic savings, something it could only accomplish if its undertakings were more-or-less concurrently, and more-or-less competitively, profitable. It certainty could not accomplish it while those undertakings were being sustained at a loss for relatively long intervals, until the deferred payoffs were realized. No one could have been more keenly aware than the proponents of the CDC how unacceptable an unprofitable performance would be to the allegedly, highly risk-averse Canadians.

It is now necessary to look more closely at the subject of capital market gap, leaving that of entrepreneurial/managerial/ technologically-innovative gaps for later consideration. In advanced capitalist countries like Canada, the very thought of a gap in an essentially unregulated market seems anomalous. It conjures up visions of market disequilibrium and the existence of either frustrated buyers or sellers, who would be willing to pay and accept the going price but are not able to consummate their desired transactions. That such a situation could exist for more than a very short time, let alone over the kinds of intervals implied by many of the CDC's proponents, seems all the more anomalous. Granted, Canadian financial institutions had never been free of regulation, but the varying degrees of regulation to which they had been subjected over the years scarcely seem sufficient to account for the anomaly. On the other hand, the market behaviour of individuals and institutions is governed by their actual objectives and perceptions of reality, not the "optimal" ones that textbooks tend to presuppose. If a sizeable Canadian capital market gap really existed, that could well imply that Canadians were overlooking good domestic investment opportunities. There might indeed exist in Canada large, neglected commercial winners, whose potentialities could, with reasonable prospects of success, be recognized and brought to fruition by a CDC or similar indigenous entity.

A variety of attempts have been made to determine whether situations in which worthy users of funds are denied access to them on equitable terms actually exist in Canadian capital markets. Some of these essentially consisted in making ad hoc observations and gathering informed opinions on the institutional structures involved. Others consisted in testing certain hypothetical notions of efficiency with empirical data. An example of the former exercise is the work of Gagnon and Papillon (1982), undertaken in conjunction with the Economic Council of Canada's Intervention and Efficiency. They found that small firms tend to rely, perhaps excessively, on debt, at the expense of equity finance. Partly, this may be due to the reluctance of small firms to relinquish control, but other factors also seem to be at work. Mintz (1978) and Neave (1981) both found that Canadian users of equity finance face higher transaction costs than comparable American users. This is especially true of lower-priced stock issues and issues having smaller total values, precisely the ones that are most characteristic of small firms. Extensive surveys undertaken during the same period under the aegis of the then Department of Industry, Trade and Commerce[1] tended to support these findings and add the suggestion -- which, as will be seen below, is of particular interest -- that there is a category of small, new, technologically-innovative firms that faces the further disadvantage of being beneath the notice of Canada's venture capitalists.

The issue, as it has been approached at a more analytical level, involves a quite different notion of a gap. Since it is highly pertinent to our purposes it deserves fuller consideration. During the past few decades, economists have been making strenuous efforts to ascertain whether securities markets in the United States, Canada, and various other countries are "informationally efficient," in the sense that they generate prices that fully and immediately reflect given sets of information. Any securities market that is inefficient with respect to certain information would enable investors possessing it to use it to their advantage. If the information were favourable, they could buy the affected securities at prices that did not reflect it and sell them later, at a profit, at prices that did; if unfavourable, they could profit by selling the affected securities short.

This simple definition suffices to convey the idea of informational efficiency but, before proceeding to discuss attempts to assess it, there is a practical matter to be mentioned. When shares of firms are traded on stock markets, they trade at prices that reflect those markets' collective estimates of the present values of their future earnings flows. When these flows are defined in terms of annual rates of return on equity, they will rarely coincide with those defined in terms of the sums of dividends and capital gains, with which stock markets reckon. The analysis in this study involves the former flows, as has been seen, while those in the voluminous literature on the informational efficiency of securities markets involve the latter. Nevertheless, on the assumption that, over intervals of some duration, these two flows will tend to be highly and positively correlated, it is legitimate for us to draw inferences from this literature.

The important issue, from our perspective, is whether, in Canadian stock markets, an investor who possesses only publicly-available information about traded firms' prospects could consistently pick winners -- by selecting firms that subsequently performed better than those represented in a well-diversified portfolio. If we define the risk-adjusted return from this portfolio, of which the Canadian nonfinancial sector is a proxy, as the investor's opportunity cost, we can address the question of whether an investor like the CDC could realistically hope to confine its acquisitions to those traded firms whose prospects had been underestimated by the market.

Securities markets that operate so as to prevent investors from consistently earning "excess returns" (by trading in securities that perform better than a portfolio reflecting the market as a whole) are said to conform with the semi-strong form of the Efficient Market Hypothesis. The numerous exercises that have tested this hypothesis in various markets typically involve the collection of some type of public announcement, such as a split, that could change the prices of affected stocks in a given direction. It is then assumed that investors act upon this information and take either long or short positions on them. Their subsequent returns are then compared with the corresponding returns from the market portfolio. If, during the post-announcement period, the average relative performance of these stocks differs in the expected direction from that of "normal" times, then the market is deemed to have allowed "excess returns" to be earned. It is therefore judged to have failed to meet the semi-strong-form criterion of efficiency. If there is no post-announcement difference in average relative performance, this is taken to imply that the market fully and immediately reflected the new information in the prices of the affected stocks. It thereby operated in conformity with the semi-strong form of the Efficient Market Hypothesis.

As was just indicated, an enormous amount of research has been done along these lines on the securities markets of various countries. Most of it has focussed on American markets, and the finding has usually been that they are semi-strong-form efficient. It is not too much to say that, until recently, these accumulated findings constituted an orthodoxy from which it seemed rather imprudent to dissent, although dissent was never entirely absent. As for Canadian markets, confidence in their semi-strong-form efficiency (based on far fewer studies) has been weaker than in that of American markets. It has been found that "excess returns" have been earned under some publicly-known circumstances, but not under others.[2]

Unfortunately, the state of knowledge of the degree of semi-strong-form efficiency of securities markets, in any country, is now generally regarded as being less satisfactory than it seemed to be only recently. This is partly due to the fact that the model that has, in various versions, been used most frequently to assess market efficiency namely, the Capital Asset Pricing Model, no longer commands as much support among researchers as it once did. Other models, such as the Arbitrage Pricing Model, have been gaining adherents. (The essential difference between these models is in their treatment of the systematic risk that is attached to a given security, the risk that the investor cannot eliminate by diversifying his holdings.) But it is also partly due to more fundamental criticisms, of the kind advanced by Summers (1982). He made the important point -- which everyone accepts in theory but many forget in practice -- that not even the most sophisticated statistical test can, by failing to reject a hypothesis, "prove, demonstrate or even support its validity." This would not be an overly disturbing caveat -- after all, non-rejection, if it occurs often enough and is interpreted judiciously enough, does tend to endow a hypothesis with plausibility -- were it not for his further claim that commonly used tests of semi-strong-form efficiency actually have much less power to discern "excess returns" than had been attributed to them.

Given the discomfiture currently being experienced by adherents of the Capital Asset Pricing Model and the relative newness of alternative models, some of the anomalies that have long been noted take on increased importance. The most prominent of these is the fact that, even in the United States, some players in the stock market have consistently managed to earn what would be regarded as "excess returns" on the basis of the semi-strong-form criterion. A different anomaly was also claimed to exist by Modigliani and Cohn (1979). They maintained that American stock markets consistently succumbed to money illusion during the inflationary seventies, with the result that equities were severely, and undeservedly, undervalued. Although, if true, this tendency could have provided little comfort to those investors who saw things more clearly, it does deal another blow to the notion that stock market prices tend to result from rational valuations made in the light of perceptible reality.

All this serves to increase the likelihood that Canadian stock markets -- which, again, have tended to be judged less informationally efficient than American markets -- are not semi-strong-form efficient. In other words, the possibility cannot be excluded (to put it no stronger) that the prices they generate would not prevent investors like the CDC -- who act in the light of publicly-available information -- from consistently making acquisitions that would bring them "excess returns" by earning above-average, risk-adjusted profits. It is true that, as has been seen, such investors might need to pay premiums in excess of market price to acquire enough shares to give them control, and this could only diminish their chances of earning "excess returns." Even then, some possibility might still remain that there consistently exist in the Canadian nonfinancial sector traded, neglected winners, available for picking by discerning investors. It was not entirely unrealistic for the CDC to aspire to that degree of discernment.

It is equally true, however, that it was bound to be extremely difficult to translate that aspiration into accomplishment. This difficulty is attested to retrospectively by the earnings performances of the CDC's acquisitions. Further evidence is provided by Table 16, which gives the earnings performance, over the decade 1975-84 (in all but one case),[3] of a group of seven Canadian investment holding comparnies, which includes the CDC, whose holdings are predominately based in Canada. (The group represents the bulk of Canadian investment holding companies, especially in terms of total assets.) None of its members clearly outperformed the average nonfinancial firm on the basis of risk-adjusted rates of return, three performed about as well, one performed slightly less well, and three performed much less well. It is noteworthy that the two weakest performers, the CDC and B.C. Resources, are conglomorates tout court, in the sense that they began as such and did not emerge from a long, successful history as a single-industry firm. Thus, their managements were called upon, from the outset, to become rapidly knowledgeable in several new and functionally different fields, instead of acquiring such expertise incrementally.

Table 16

Nonfinancial Sector and Certain Investment Holding Companies

After-Tax Rates of Return on Equity, 1975-84

	Nonfinancial Sector	CDC	Brascan	Power	B.C. Resources	C.P. Enterprises	Genstar	Hollinger
					%			
1975	13.7	4.1	8.3	10.1		16.1	19.7	17.3
1976	12.6	3.1	9.8	3.9		14.4	19.2	12.8
1977	12.1	3.3	12.4	4.6		19.4	18.8	15.2
1978	13.9	5.0	(3.7)	11.7		21.0	17.7	15.9
1979	17.9	15.5	6.7	25.2	11.7	25.3	20.6	16.1
1980	16.0	17.4	9.7	25.2	6.8	22.3	19.6	14.8
1981	11.5	6.6	10.0	17.1	5.7	15.4	11.5	14.6
1982	6.0	(10.5)	4.8	7.8	(4.0)	5.2	(9.2)	6.5
1983	9.1	(4.0)	7.8	9.4	0.8	3.2	11.3	7.3
1984	10.4	6.9	7.9	17.5	(1.8)	9.8	11.8	(1.8)
1975-84								
Average	12.3	4.7	7.4	13.3		15.2	14.1	11.9
Coefficient of Variation	0.26	1.64	0.57	0.55		0.45	0.60	0.48
1979-84								
Average	11.8				3.2			
Coefficient of Variation	0.35				1.67			

Sources Statistics Canada, Canada Development Corporation annual reports and Department of Finance.

This is hardly the place for an extended discussion of the merits and shortcomings, either potential or actual, of the conglomorate as an organization form. There is a large literature on this highly controversial subject that can be consulted.[4] Since our purpose is confined to assessing the realism of the CDC's management's undertaking to acquire neglected winners and then realize their potential, it is fair to cite the above track record as further evidence that their chances of successfully bucking the implicitly long odds were slight. As for their chances of doing so to the extent originally intended -- by earning returns about 50 per cent higher than the national average -- these were clearly negligible.

It is also most unlikely that, for all his enthusiasm for Canadianization, Walter Gordon would have proposed and fought for a CDC that only conceived of itself in such winner-picking terms. It is equally unlikely that either his supporters or his successors as Minister of Finance would have espoused the cause of such a CDC. In spite of their many unflattering references to the adequacy of Canada's equity markets, and notwithstanding their lack of precision as to how the CDC would actually deploy its investment funds, the great majority of the proponents of the CDC did not envisage it as a mere winner-picker -- albeit one with a bias towards foreign-controlled firms -- whose primary function would be to "know better" than the stock market. To be sure, their CDC (or, more accurately, CDC's) would earn profits, more or less from the start, and it would certainly not be precluded from acquiring other firms, but those activities were to be carried on within the context of a much wider set of objectives. So far as they were concerned, it was these objectives that collectively constituted the CDC's *raison d'être*, its continuous-profit requirement being more of a constraint than an objective. This issue of the relationship between what was intended by the CDC's proponents and what was intended and done by its management is a matter of major importance to any attempt to understand and benefit from the phenomenon of the CDC. It will therefore be discussed further in the next chapter.

On Filling Entrepreneurial Gaps

Although it was articulated most comprehensively by Dimma, the view that there exists in Canada a deficiency of indigenous entrepreneurial talent (as well as of institutions to foster it) was common to all the CDC's proponents. It would seem that it was also at least partly shared by many of the CDC's opponents, since there was so little serious debate on the subject. Very few hard questions were put to the Corporation's proponents, challenging them to substantiate their argument beyond general references to the rigidity of Canada's social structure and the inadequacy of her educational system. It is almost as if everyone tacitly agreed that the notion that Canadians suffer from an inferiority complex is beyond dispute. The CDC's proponents also made little serious effort to explain, nor its opponents to ascertain, exactly how the Corporation would proceed to ameliorate this ostensible deficiency. Still less was the question explored as to how ameliorating it related to the other aspects of the CDC's intended role. The following briefly addresses some of these issues.

It should be noted, to begin with, that there is something inherently awkward about the notion that there is a shortage among Canadians (or among the people of any advanced capitalist society) of the ability to recognize good business opportunities, to marshall enough financial, technological and human resources to pursue them and, finally, to organize and manage the activity necessary for their successful realization. This is so not only because it can never conclusively be demonstrated that no such shortage exists (because of the impossibility of proving a negative), but also because it cannot be shown that good opportunities exist which are being neglected for want of the talent to recognize and exploit them. The question of the existence of what is not observable tends, in a case like this (as in analogous cases considered above), to be a rather metaphysical one, no more susceptible to empirical proof than to disproof. While it is undoubtedly true, in any society and at any time, that there will exist some product or process innovations, or other opportunities, which, if recognized and developed, would bring handsome rewards, this is a trivial finding and a useless one from a policy perspective. The meaningful issues concern what, if anything, the government can or should do to foster improved domestic entrepreneurial capabilities, and what the costs would be of its intervention.

It would not have been necessary to be an apologist for either Canada's social structure or her education system to put some pointed questions to the CDC's proponents. For example: Whatever may have happened in the past (i.e., no matter how many sound domestic investments were left for foreigners because Canadians lacked the necessary acumen and ability), how does that show that Canadian businessmen and managers, as groups, are inadequate to the challenges of today? Which good domestic opportunities are now about to go to foreigners by default or simply hang fire, or are likely to do so in the future? Indeed, by which means can such questions even by addressed? If, unlike the conditions of the past, there are now enough capable Canadian businessmen and managers, but they lack suitable, indigenous corporate frameworks within which to fulfill their potentialities, where are they and what are they doing? Given that Canadian capital markets have come a long way during recent decades, why, if such frustrated Canadians really exist, are they so passive in the face of opportunity? Why have not the necessary corporations emerged? Or, is the problem really a different one altogether namely, that such talented Canadians do not yet exist in sufficient numbers, but, given the opportunity, they would evolve? If that is so, and if the CDC is intended to provide that opportunity (or some of it), is it realistic to expect it to earn a competitive rate of return at the same time?

Unfortunately, these questions, or analogous ones, were neither coherently put (except indirectly, by Neufeld) nor answered during the debate that preceded the creation of the CDC. Equally unfortunately, the performance of the actual CDC sheds as little light on them as the debate on the proposed one did. For, as has been seen, the actual CDC sought to pick winners for the sake of profits, not to recruit and more productively employ talented Canadian entrepreneurs and managers who had previously been inhibited by the ostensibly confining constraints of other corporate structures. Neither did it particularly seek to recruit Canadians who, given the opportunity, could develop to a higher level of competence. Although the CDC certainly made personnel changes in the firms it acquired, either at the time of acquisition or later, when earnings plummetted, there is no evidence that nationality was a decisive consideration (although it may have been a consideration, one among several) in the determination of who was retained and who let go, or of who was hired and who passed over.

This makes it difficult to regard the post-acquisition operating losses of these firms as the unavoidable costs of learning-by-doing, in the development of more capable Canadian entrepreneurial and managerial cadres. It is true that the CDC's top management have been Canadians from the beginning and, having gained much experience, may now be regarded as being wiser and more competent than they were before. Thus, some of the CDC's total foregone earnings may be taken as the cost of their education, as well as the cost of the education of those of its lower-level managers who are Canadians. The remainder of the CDC's foregone earnings must, however, be attributed to its attempts to achieve the improbable.

A Question Answered

The question was asked at the start of the preceding chapter whether there was anything in the nature and quality of the arguments advanced in favour of creating the CDC that might have foreshadowed its subsequent, unprepossessing earnings performance. It is clear from the foregoing that the answer to this question must be in the affirmative. There were simply too many ambiguities, uncertainties, and outright leaps of faith embedded in those arguments not to have caused concern. The ambiguities had to do with the very conceptions of the gaps that the CDC was intended to narrow, the uncertainties with whether and, if so, to what extent they actually exist in Canada, and the leaps of faith with whether the CDC could narrow them while earning a competitive rate of return. There was also a dearth of practical guidance to the management of the prospective Corporation as to how they were to go about the everyday business of doing their prescribed job.

This does not mean that the entire responsibility for the CDC's earnings performance can fairly be attributed to the Corporation's proponents. As has been seen and will shortly be further elaborated, what the government authorized and what the CDC's management chose to attempt both differed from what the proponents had intended. That could not have been foreseen.

It is interesting to note, however, that even if its management had attempted to carry out fully the intentions of its proponents, the CDC's earnings performance would probably have been no better than it was. Indeed, it might well have been worse, at least during the early years. This is so because, if the CDC had consciously attempted to develop indigenous entrepreneurial talent, by reserving management jobs for Canadians -- as La Société Général de Financement du Québec (SGF) did for francophones -- it might have lost more money -- again, at least during the early years -- than it did in trying to pick winners. But, then, Canadians would have had the satisfaction -- which has been claimed to be considerable[5] -- that comes from this form of economic-nationalism. They might have regarded that outcome as being a better bargain than the one they actually obtained, whereby they became the nominal owners of some formerly foreign-controlled firms whose managers continued to be largely foreigners.

PART III

LOOKING AHEAD

6 LESSONS AND POLICY IMPLICATIONS

There are a number of useful lessons to be derived from Canada's experience with the CDC from 1972 to 1985. They are best approached by addressing several questions, the first of which is whether the forces that produced the Corporation are still at work. The next questions concern what went wrong and where the responsibility lies. As has been indicated, what went wrong has some roots in what went before, but only some. The other roots are the deliberate choices made by the CDC's management and their prior, general authorization and subsequent, tacit endorsement by the government. These can be identified by further considering the activities the CDC was intended to undertake, those it did undertake, and those that it did not. This prompts various criticisms of all the main actors: the economic-nationalists who demanded the CDC, the government that created and oversaw it, and the executives who headed it. The final questions to be asked concern whether anything still remains of the original case for the creation of the CDC and, if so, what is to be done.

Contemporary Economic-Nationalist Stimuli and their Prospects

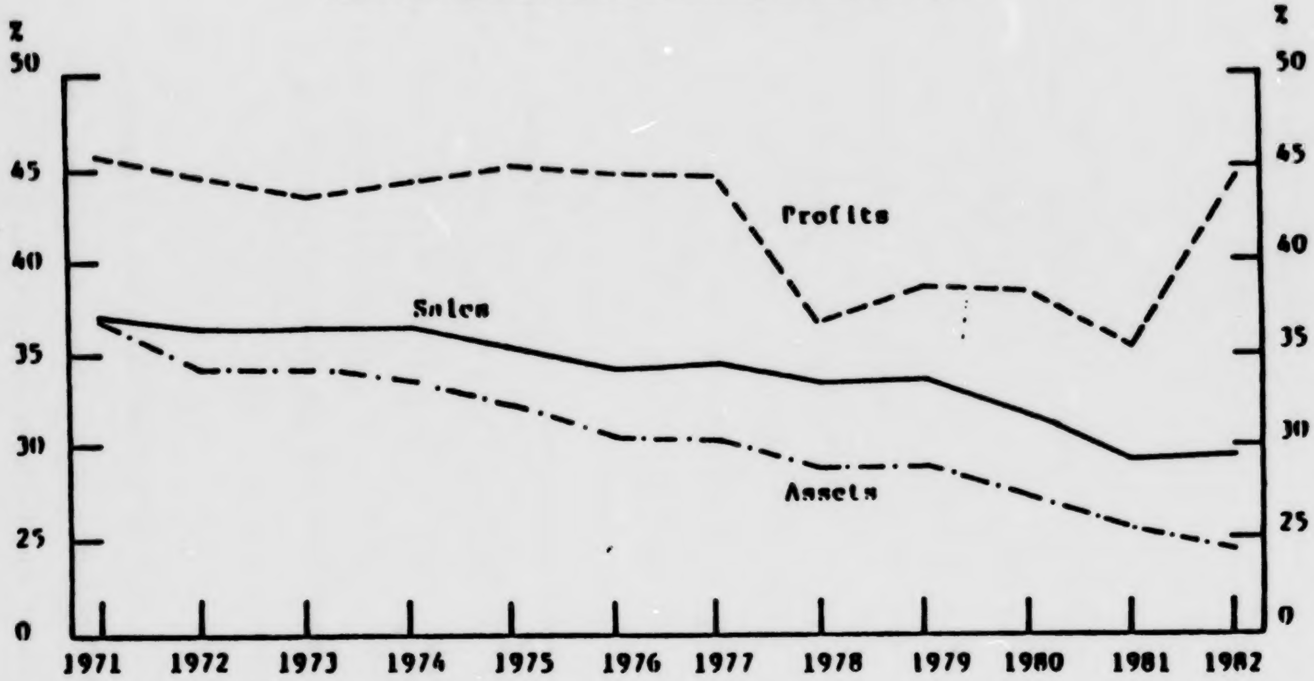
The first, and perhaps most important, lesson to be learned from the experience of the CDC is that, while it may be *sui generis*, as a policy instrument of the federal government, the pressures that caused the government to create it are not. Nor are they likely to prove to have been nonrecurring. The perceptions and sentiments that generated them are still held and felt -- even if perhaps less widely and intensely than before -- by many Canadians, and the objective conditions that prompted them have certainly not disappeared. As contemporary events confirm in many parts of the world, nationalism has lost none of its power, cyclical though it may be, to arouse popular passions and move governments. Indeed, this very cyclical pattern suggests that the apparent attenuation of that power in today's Canada may presage its resurgence in tomorrow's.

It is therefore appropriate to return to those aspects of the structure and performance of the Canadian economy that gave rise, during the late-fifties and the sixties, to the cultural and political tendencies that produced the CDC (among other consequences) and which still exist. It must be borne in mind, however, that these tendencies did not operate in a vacuum. They operated in the context of a quite comprehensive interventionist outlook. It may be true that many of the ideas that collectively compose this outlook were then held more widely and fervently than they are at present -- or it may not. In any case, they have hardly disappeared. These, or analogous, ideas have been held for decades in Canada and many other countries. Sometimes they have waxed, as during the sixties, sometimes they have waned, as perhaps currently. Like nationalism's, their pattern has tended to be cyclical. Thus, here, too, Canada may now be in a trough, with an upsurge in the cards, perhaps before long.

As Figure 1 confirms, the foreign (largely American) presence in the Canadian economy, though diminished, is still very prominent and, in at least one important respect, is more striking than ever. Although there has been a substantial reduction (in the vicinity of one-third), over the past decade, in the proportion of nonfinancial domestic assets

Figure 1

Percentage of Assets, Sales and Profits of Foreign-Controlled Corporations in the Nonfinancial Industries, 1971-1982



Source Statistics Canada.

controlled by foreigners, their share of the profits generated by those assets was recently restored to its highly disproportionate level of a decade ago. In other words, although foreigners now control relatively fewer domestic assets than they did in 1972, their currently-held assets are more profitable, on average, than their assets of 1972 were -- and those were already considerably more profitable than Canadian-controlled assets.

It is reasonable to assume that this decline in the relative size of the foreign stake in Canada's nonfinancial sector, together with the accompanying decline, during the latter seventies, in its profit share (see Figure 1), contributed significantly to the abatement of economic-nationalist sentiment that seems to have occurred during the decade, especially its latter part. If so, the recent upsurge of this profit share, along with the declarations by the federal government and various provincial governments that Canada is again "open" to foreign direct investment may -- if they are maintained and rewarded by substantial increases in that investment -- reignite that sentiment. If the history of the sixties is pertinent, the magnitude of the foreign response to these official overtures, if it is large, is likely to be reflected not only in increased national income and employment, but also in a replenishment of the seedbed of economic-nationalist discontent. Canada's already unique situation with respect to the proportion of its productive assets controlled by foreigners will probably become even more singular, and that may ultimately prove to be correspondingly more vexatious to the national psyche. Granted, neither the timing nor the intensity of the ensuing cultural and political reactions is predictable. These will depend upon many factors that are now imponderable, and upon theoreticians and leaders who have yet to emerge. But it would be imprudent to regard this unpredictability as grounds for complacency. If previous stimuli of economic-nationalist passions continue to be present in the Canadian economy, perhaps even more pervasively than before, they may be expected to make themselves felt sooner or later, and perhaps even more strongly than before.

The other element in the Canadian economic situation -- often linked to the foreign presence -- which generated much anxiety during the sixties, was the highly concentrated structure of many domestic industries, which were at the same time "overcrowded" by many small and inefficient, largely domestically-controlled, firms. As was indicated earlier, the tariff was usually regarded as the main villain of the piece. It received a good deal of blame for the uncompetitive position of Canadian manufacturing in world markets, as well as for having provided the context within which another declared villain, foreign direct investment, flowed into Canada. (That both had provided, each in its own way, important benefits to Canada was not denied. But this, it was held, did not alter the fact that, in the end, both had increasingly served the country badly.) Although the nominal tariff has diminished very substantially during recent decades, it is not apparent, given the ubiquitous nontariff barriers that have emerged during the same period, that inefficient Canadian firms are currently less well-protected from foreign competition than they used to be. What is apparent is the likelihood that, whatever their current situation, they will, in the not-very-distant future, become increasingly exposed to the world. The findings of the recent Royal Commission on the Economic Union and

Development Prospects for Canada, and the government's subsequent commitment to the still-continuing "freer" trade negotiations with the United States (which the Liberal Opposition apparently does not oppose in principle) both tend to argue in favour of that eventuality. Of course, how quickly and how extensively existing arrangements will change, and how the changes will affect different industries, are, like the answers to questions pertaining to future economic-nationalist sentiment, entirely in the realm of speculation. But, here, too, this hardly implies that the status quo can confidently be expected to continue.

On the other hand, even an unsound and ultimately untenable status quo can last for a long time. And, even after it has begun to succumb to the forces of change, many of its more problematic features can continue to characterize the unfolding, new dispensation, and also for a long time. This truism applies to the many uncompetitive domestic industries that are likely, as was just indicated, to find themselves increasingly vulnerable, not only to the competition of American rivals but, also, and perhaps even more disturbingly, to that of rivals in the growing number of low-wage, hitherto-unindustrialized countries of the Third World that are now industrializing. The possibilities are numerous and complex, but it is not unlikely that both the relative size of the foreign stake in the Canadian economy and its concomittant share of domestic profits will grow (though its national composition may alter) as the impact of these pressures is felt. If this happens, the reduced Canadian-controlled sector may consist of fewer, larger, and more efficient firms (or it may not), but the fact that it is both smaller and, probably, relatively unprofitable is bound to enrage already convinced economic-nationalists and swell their ranks with new converts.

All the familiar complaints will be pressed anew, and with renewed vigour. Apart from the humiliating diminution of sovereignty that will be seen to inhere in their country's heavy and growing dependence upon foreign capital -- which will also be seen as creaming off the most profitable activities -- Canadians will again be told that, in spite of recent progress that includes the undertaking of large investments abroad, they remain collectively deficient in entrepreneurial and managerial talent, that they remain insufficiently technologically-innovative, and that their prospects are bleak. The probably still-oligopolistic Canadian financial sector (whose member institutions may need to be big in order to be internationally competitive) will again be held at least partly responsible for this state of affairs. If, in addition, another recently-noted tendency becomes more pronounced -- foreign competition combining with technological change to displace Canadian workers from relatively highly-skilled and highly-paid jobs, in the manufacturing and resource sectors, into relatively unskilled and poorly-paid jobs in the service sector -- the cry that Canadians are hewers of wood and drawers of water, figuratively speaking, will again resound throughout the land.

These, of course, are far from being the only possibilities. But even if the future unfolds according to a more benign scenario, it is not to be expected that many, probably most, Canadians will ever be other than ambivalent about the enormous foreign presence in the economy. However good the quality of their corporate citizenship, foreign-controlled firms must, in the end, march to foreign drums; it is inevitable that this will regularly offend native sensibilities. There are many actual and potential irritants and provocations. They range from the power of large multinational firms to play off one provincial government against another in extracting concessions, to the reservation of their top-level jobs for their own nationals, to the various self-serving acts enumerated by the Watkins Task Force. For one reason or another, a foreign presence of such size and ubiquitousness is bound to inject enough powder into the Canadian atmosphere to make it continuously susceptible to sparks. If these sparks are to generate more than the heat they generated in the past, the ignorance about the impact of foreign direct investment that prompted the appointment of the task force -- which was unable to dispel it -- will first have to be recognized anew and then addressed more vigorously than it was twenty years ago.

What the CDC's Management Said they Would Do, What they Attempted, and What they Did not Attempt--In Comparison With What its Proponents had Intended

Among the very first steps taken by the new firm's senior management was the formulation of their philosophy and goals. These were approved by its Board of Directors, publicly announced in its first annual report, and reiterated in those of several of the following years. They were quoted earlier, *verbatim*, and briefly commented upon. They did not lend themselves to tidy and coherent summarization, and reflected objectives whose consistency was not always self-evident and which appeared to have only a tenuous connection with those espoused by the Corporation's proponents. It was declared, for example, that it would be of central importance for the CDC to invest in rapidly-growing enterprises. This was affirmed in the context of a declaration, of apparently general application, of intention to increase Canadian equity participation in industries where foreign ownership was high but where Canadian strengths and competence already existed. That could well have implied an intention to acquire foreign-controlled firms in such industries. If, however, those firms were subsequently operated by the same senior personnel and along much the same lines as before, and, inevitably, in competition with the rest of the industry, including its Canadian-controlled members, it would be hard to ascertain the net benefits accruing to Canadians -- apart from the psychic benefits of increased national pride. To operate them more profitably then their previous owners had done would not only require great skill -- they were, after all, already rapidly-growing -- but it might also prove to be detrimental to their competitors, including the Canadian ones.

On the other hand, it might also have been intended to acquire (smaller) Canadian-controlled firms -- themselves rapidly growing -- either before or after the acquisition of foreign-controlled firms, and then operate the merged or associated, and more efficient, entities more profitably than before. If the acquired foreign-controlled firms were already rapidly growing, this would imply that their operations were probably not truncated. That is to say, they were not being operated in a fashion that was beneficial to their foreign-controlled corporate families but harmful to their own, Canadian interests. Given the familiar, inherent difficulty of surpassing their previous performances, what cause could their acquisition serve other than that of nationalism? Matters might be different if the firms had not been rapidly growing, either because their operations were in fact truncated or because their managements were mediocre (or both). Then, provided that the prices paid were not too high, their takeover by the CDC, followed by the revamping of their operations, might indeed transform their performances for the better.

It appears, however, in the light of the CDC's criteria, that such candidates were to be excluded from consideration, although elsewhere the management did speak of upgrading resources, and this could have referred to cases where truncation or mediocrity reigned. Upgrading resources, however, resembles picking winners in its intrinsic difficulty, as the Corporation's experience with Connaught demonstrates. Consequently, no matter how these policy declarations are read, they remain ambiguous. Moreover, the earning of the high long-run rate of return (50 per cent above the national average) that was also declared necessary could only make the CDC's mission all the more arduous and complex.

The CDC's subsequent behaviour tends, on the whole, to lend credence to its declared intention of concentrating on acquiring large, rapidly-growing enterprises (usually foreign-controlled) in industries where there already existed a Canadian presence. The Texasgulf, Tenneco, and Acquitaine acquisitions -- two of which collectively loom large on its historical landscape -- testify to this, as, to a lesser extent, does the acquisition of Savin. For all their diversity of activity, what unites these (and other) CDC acquisitions is its management's belief that they could be operated more profitably than the stock market had expected. Unfortunately, events were to confound that belief much more often than not.

When considered in the light of the earlier pronouncements of its proponents, the official statement of the CDC's philosophy and goals is also notable for what it omitted. By the same token, the Corporation's subsequent performance is also notable for what was not, or hardly, attempted. Recall the five purposes that its proponents had intended it to serve (not necessarily in the order listed). It is true that the official statement referred to the occasional acquisition of Canadian-controlled firms, in order to prevent them from coming under foreign control, but it immediately went on to warn against the possibility that such firms only came on the market because their prospects had dimmed. A CDC that was oriented towards the acquisition of rapidly-growing firms could hardly be expected deliberately to encumber itself with losers, however eager it might be to enhance the Canadian presence. If, as has been seen, operating in Canadian stock markets with a view to picking neglected winners is very hard to do successfully, when the choice is unrestricted, how much harder must it be when the selection is confined to Canadian-controlled winners that are in danger of being acquired by foreigners? In any event, the CDC chose not to confine itself in this fashion, and thus did little or nothing to save Canadian-controlled firms from becoming foreign-controlled.

Another of the proponents' intended purposes involved the financing of new, technologically-oriented firms so that they might be spared the need to turn to foreign sources of equity finance. For the CDC to serve this purpose, it would, in effect, have to become, at least in part, a venture capitalist. It has indeed done this, albeit at one remove. This indirect involvement was in no way inconsistent with the intentions of the proponents, except that its relative scale may have been rather smaller than the one that they had envisaged. As for the fact that it has so far turned out, so far as can be ascertained, to be unprofitable, that had certainly not been envisaged. (This matter of a venture-capitalist role for the CDC is of continuing interest and will later be taken up again.)

A third intended purpose involved the undertaking, either alone or with others, of large and risky domestic projects of the kind that Canadians had historically been prone to leave for foreigners, because they lacked either the necessary funds or animal spirits, or both. The joint project that led to the creation of Petrosar, which was begun by Polymer before it was acquired by the CDC (although the CDC could perhaps have backed out, if it had wanted to, since the work did not seriously get under way until later) -- and if it is not more appropriately classified under the next intended purpose -- seems to be the only substantial example of such activity. This should have come as no surprise to anyone who had carefully read the Corporation's philosophy and goals. These stressed, be it recalled, the central importance of investing in (large) rapidly-growing enterprises. Clearly, the focus was to be on operations that were already going concerns, not on new ventures that might not otherwise get off the ground or which would, as in the past, be left for foreigners. (This is another matter of continuing interest.)

A fourth intended purpose, participation in large, export-oriented consortia, has obviously not been a major preoccupation of the CDC's management, however Petrosar is classified. They indicated that the Corporation would be receptive to such good opportunities as might present themselves. Apparently, none did, apart from Petrosar.

The statement of the CDC's philosophy and goals was also silent on the subject of the remaining intended purpose namely, the marshalling of the savings of Canadians who did not ordinarily invest in equities. It had been intended that the Corporation would accomplish this by bypassing conventional, oligopolistic, private equity-market institutions and, through the nation-wide network of the chartered banks, enable such Canadians across the country to subscribe for CDC shares. They would thus be able to do so, not only at lower transaction costs, but, perhaps, on the instalment plan as well. For whatever reason, this apparently has not come to pass and, as is outlined in Appendix A, the CDC has not become the exemplar of people's capitalism that had been envisaged.

A Parenthetic Organizational Note

When it became apparent in the course of the research that the CDC's lack of overall commercial success was mainly attributable to the daunting odds it sought to defy, the question of the quality of its management structure and practices assumed secondary importance. It was consequently not investigated in anything resembling a systematic fashion. Nevertheless, some effort was made and some information pertaining to these matters gathered.

The first thing to be noted in this connection is that the CDC's management were extremely unforthcoming in providing information about the Corporation's affairs beyond what was contained in its annual reports, prospectuses, official statements at shareholders' meetings, and the like -- even when the information was commonplace, sought only to fill lacunae in its financial statements. It soon became clear that there was no more possibility of eliciting their version of how they operated, and why, than there was of obtaining their side of the larger CDC story, especially its naunces and intangibles. Recourse was therefore made to several professional CDC-watchers in the financial community on a confidential basis. The resulting consensus can be briefly summarized.

As the management had promised at the outset, the CDC was indeed structured in terms of major investment-vehicle subsidiaries, each with its own specialized management. The parent company was relatively small in terms of senior personnel, and specific individuals were assigned responsibility for the various investment vehicles under the general supervision of the Chief Executive Officer. After a few years, however, the perception developed outside the Corporation that this delegation of responsibility was more nominal than real, and that it was the Chief Executive officer who really called the shots, not just ultimately and generally, but directly and in detail. This, it was believed, not only undermined morale but operating efficiency as well: the CDC had simply grown too big and complex for any one individual successfully to hold all the reins. In response to the obvious question of why its Board of Directors, composed as it was of highly experienced individuals, tolerated this situation year after unprofitable year, it was suggested that they had become so outraged by the government's attempts to interfere in their affairs (see Appendix B), and so anxious to assert both their independence and that of the Chief Executive Officer, that they felt constrained from looking at the Corporation's decision-making process as closely and critically as they might otherwise have done.

With all due respect to sophisticated analysts, it is very difficult to judge the accuracy of this perception, especially in hindsight. It set in during the period when the CDC's unhappy financial performance went from transitional to chronic. Under such conditions observable, tangible results were bound to have their effect on the perception of what was largely unobservable and intangible. It must not be forgotten, however, to paraphrase John F. Kennedy, that success tends to have many fathers while failure tends to be an orphan. The odds that the CDC attempted to overcome would probably, in the end, have defeated even the most able and best organized senior management, and the decision to make that attempt was, after all, a collective one.

Errors, Omissions...and Responsibilities

The single positive achievement of the CDC, up to now, has been to make a not-insignificant dent in the size of the foreign-controlled sector of the Canadian economy. It is an irony of considerable proportions that the early-Gordon vision, with its distinctly buy-back overtones (which was never accepted by mainstream economic-nationalists and was subsequently modified by its author), should have become the hallmark of the Corporation created by a government that was, in the main, inhospitable to his ideology. Nevertheless, and although some, if not all, of its investments may yet turn out very well, this achievement has carried a high price tag. Some Canadians might consider it to have been worthwhile, but others would disagree. They could point to the endless assurances that had been given that Canadianization would increase, rather than decrease, national income, as well as to the tangential relationship between what the CDC was supposed to do and what it actually did.

The indictment of the CDC does not stem from the fact that its self-assigned, principal task was an extremely difficult one -- that, in itself, would hardly be objectionable. It stems from the fact that it was for the most part unnecessary -- which is objectionable. The difficulty of the task imposed substantial, unanticipated costs upon Canadians, while its lack of necessity deprived them of the comfort of knowing that they were the unavoidable price of filling "gaps" (the term is not ideal but must serve, since usage has given it a certain currency) in the structure of the Canadian economy. The CDC has so far filled very few genuine gaps, even partly.

As has been said, most of the direct responsibility rests with the CDC's management, but not all. Some of it can fairly be laid at the government's doorstep. Granted that repeated assurances had been given, before the Corporation was created, that its management would have full decision-making autonomy, the fact remains that it did not adequately discharge its responsibilities in regard to the CDC's mandate and *modus operandi*. The legislation establishing the Corporation could hardly have given its management a broader mandate. If they subsequently chose to interpret it in a fashion that bore but little resemblance to what the CDC's proponents had intended, this could not have happened without the prior help, through their acts of omission, of the cabinet that approved Bill C-219 and the legislators who voted for it. Nor could it have happened without the tacit approval of the government, which, in addition to its ordinary oversight mechanisms, was also represented on the Corporation's Board of Directors. At every stage, and when every important decision was taken, it knew, or should have known, what was going on. It would not have constituted a violation of its oft-repeated promise of noninterference if it had used its influence to inhibit the CDC's management from concentrating their efforts in a direction that differed from that which had been intended, and which prevented them from pursuing most of the objectives that had been intended. For the government to have done this would not have constituted "intervention" in any pejorative sense but, rather, the discharge of its responsibility to ensure that the CDC's behaviour conformed with the mission that had been sold to the country as its *raison d'être*.

The economic-nationalists, whose tireless campaign finally brought the CDC into existence, also have serious indictments to answer, although their insistence that Canada's economic situation was problematical, and that this was linked to the enormous foreign presence, was no ideologically-inspired fantasy. Consider the report of the Watkins Task Force, which is about as cogent and comprehensive a statement of the mainstream economic-nationalist case as can be found. For all its moderation of tone and reluctance to offer simplistic answers to complex questions, it is open to serious criticism, above all where the CDC is concerned. Its authors reviewed foreign direct investment in Canada in a fashion that was so abstract and empirically thin that -- again especially where the CDC is concerned -- when scrutinized, many of their policy recommendations resemble expressions of hope more than firmly-based judgments.

They repeatedly recognized that foreign direct investment has brought important benefits to Canada, in terms of income, employment, economic development, skills, technology, and the like, but held that these benefits have been coming at an increasingly high price, not only in the political terms of diminished Canadian sovereignty, but also in economic terms. Although they were quite unequivocal when discussing the nature of the benefits, they described the economic costs only as contingencies, which could ensue from foreign control of domestic firms. This was done so tendentiously, however, that, in the end, their contingent character was obscured. Moreover, the benefits were themselves declared to be damaging to Canadian interests because they enabled Canadians to avoid growing up. In the end, foreign direct investment was damned for simply "being there." A similar attitude was displayed by other economic-nationalists.

The inadequacy of Canadian equity markets was a major theme in the economic-nationalist complaint, but it was neither substantiated nor explained as a continuing phenomenon. Such evidence as was adduced was fragmentary and inconclusive. For example, much was made of the discount at which the shares of Canadian closed-end funds traded. It was attributed to inequitable domestic tax rules, compared with American rules, but little or no recognition was given to the fact that the shares of American closed-end funds also tended to trade at a discount. By the same token, references to oligopalistic and regulated domestic financial intermediaries did not suffice to explain why new entrants did not emerge to meet the unmet needs of worthwhile users of capital. The equally fundamental claim that indigenous entrepreneurial capabilities are still inadequate to take advantage of all good opportunities was similarly unsubstantiated.

To be sure, the Canadian mosaic, with its self-perpetuating elites, was blamed for obstructing the emergence of new talent. So was the Canadian educational system, which was said to compare poorly with those of other countries in its orientation towards business and technology. And, Canada's long, previous history as a colony was held to have endowed Canadians with a national inferiority complex. All, or much, of this might have been true, but it was neither a sufficient analysis nor a blueprint for improvement.

The preferences of Canadians also received insufficient attention. It might have been correct to assert -- although no evidence was adduced -- that they are more risk averse -- largely for the foregoing reasons -- than other people, but the fact remains that the fashion in which Canadians freely choose to allocate their assets and energies represents their view of what is best for them, as individuals. The economic-nationalists may not have been wrong when they maintained that these allocations have not always been in Canada's best, long-term interests, and they may have proposed sensible measures to broaden the range of choice open to Canadian investors, but they seriously underestimated the intractability of long-established habits and arrangements. Nowhere was this more apparent than in their conception of the CDC.

The Corporation was envisaged as a Canadian analogue of the giant American conglomerate. It was to be a large holding company with entrepreneurial and management functions, and, in close cooperation with existing private institutions, it was to assume a leadership role in the Canadian business sector. Its capacity to draw upon the expertise of the financial community and provide a focal point for the mobilization of "entrepreneurial capital" would help remedy a major flaw in the Canadian equity market, by matching increased equity-holding by Canadians with increased Canadian control. But this vision immediately provokes questions of the kind raised earlier. If the requisite entrepreneurial talent was already dispersed among Canadians, where was it, and how was it to be gathered together under the CDC's roof? If it did not yet exist, how was it to be developed, and how much would this cost? If close cooperation between the projected holding company and Canadian financial institutions was a realistic prospect, why did it not already prevail to the requisite degree in relation to those (admittedly few) existing Canadian holding companies that were large enough to do what the CDC was intended to do -- after all, nothing that the CDC was intended to do was perceived as being unprofitable? Deponents did not say.

Nor are these the only important, neglected questions. The others may be encapsulated as follows: How was the CDC's management to implement the economic-nationalists' mandate in practical terms? By which criteria were they to select the variegated investments they were intended to undertake? Because these, and similar, questions were neglected, the management were largely left to their own devices. This was as unfair to them as it was contrary to the interests of Canadians.

Whether in the report of the Watkins Task Force, the various statements by Gordon, the later Gray Report, or Dimma's analysis, the overall impression was conveyed that, at least so far as the CDC was concerned, the rectification of the deprecated conditions would be a costless process. The CDC would pay its own way while doing what needed doing. This sanguinity is perhaps the besetting defect in the economic-nationalist approach. Whereas the Corporation's management are open to the criticism that their self-assigned mandate was not only a major deviation from what its proponents had intended but was also largely unnecessary, the proponents can justly be charged with having made far too facile a transition from observation to diagnosis and, then, from diagnosis to prescription. Their prescribed CDC was, moreover, new and untried, and its possible side effects were unknown -- but that was disregarded. The patient was urged to avail himself of the prescribed remedy and to expect that its benefits would be both immediate and unalloyed. As things turned out, what was sought by the remedy's custodians was not what had been prescribed by the diagnosticians, and what the custodians achieved turned out to have side effects that were as disconcerting as they were unanticipated.

What is Still Worth Attempting

During the debate that preceded the creation of the CDC, Neufeld, as has been noted, was a voice of caution. Citing the findings of the Royal Commission on Banking and Finance to the effect that Canadian equity markets were not generally so inadequate as was being claimed, he suggested that it was not necessarily the existence of domestic equity-market gaps that prompted foreign multinationals to establish or acquire Canadian subsidiaries. A variety of other factors, which reflected their internal dynamics, could be at work. For him (1966a), this implied that:

> If we do not know what have been the major reasons for increased foreign ownership of Canadian industry, then the first task must be to find out. Until we know, it would be as irrational to assume that it has not arisen from a capital market gap as it would be to assume that it has. (p. 15.)

Had these words been heeded twenty years ago, Canadians would not only have avoided considerable monetary losses but they might, by now, have made significant progress in identifying, and addressing, the problems that large-scale, often dominant, foreign direct investment may bring -- along with its benefits -- to many domestic industries. They probably would also have gained a better sense of the degree to which Canadian equity markets operate efficiently to match domestic demand for entrepreneurial capital with domestic savings. The present comparative lull (which may not continue indefinitely) affords a particularly good opportunity to illuminate matters. The need to do so exists as much for those who believe that Canada needs more, rather than less, foreign direct investment as it does for the economic-nationalists -- who, incidentally, have maintained a seemingly embarrassed silence on the subject of the performance of the CDC they fought so long and hard to create -- who hold the opposite view. It is worth mentioning that much the same point was recently made by the Royal Commission on the Economic Union and Development Prospects for Canada.[1]

This is not the place to specify the best means of generating the necessary information and analyzing it, and, then, of maintaining it on an ongoing basis. Perhaps a royal commission, having appropriate terms of reference, representative membership and an adequate research staff, might effectively serve the immediate purpose. The continuing purpose could be served by the implementation, at Statistics Canada, of the Watkins Task Force's recommendations concerning the Corporations and Labour Unions Returns Act, modified in the light of the experience of the past twenty years. The need to specify the mechanics is, at present, far less urgent than the need for the resolve to proceed deliberately and expeditiously.

This does not mean that there is nothing more to be done in the meantime. We may be far from knowing what we need to know about foreign direct investment in Canada in order to make realistic, adequately nuanced and discriminating judgments about it. Similarly, we may not be in a position fully to assess the overall efficiency of Canadian equity markets. But there is enough reason to believe that there is room for improvement in their workings to consider taking certain specific, limited, and self-correcting steps. These would involve the utilization of the government-enterprise instrument and would impinge upon both ends of the venture-size spectrum.

It is instructive to approach the subject by first identifying certain types of government initiatives that are not contemplated in the present context, whatever their merits may be in others. Both these and the initiatives that are contemplated are often categorized under the rubric of "industrial policy." If the term is defined broadly enough -- as government intervention at the microeconomic level -- then in spite of its current disrepute, it is evident that Canada has long pursued such policies in one form or another.[2] It was only during the last quarter-century, however, as both the tempo and magnitude of microeconomic intervention increased, that the term came into its own. Virtually every policy instrument available to government was used -- tax incentives, subsidies, loans, loan guarantees, and government enterprises. There were also analogous developments in the provinces. As was indicated earlier, it was the totality of this interventionist activity -- which was generally politically popular -- that composed the environment within which the determined efforts of the economic-nationalists could gather force and successfully culminate in the creation of the CDC.

The commercial government-enterprise instrument had a lesser but not unimportant place in the government's microeconomic-policy tool kit (in addition to its traditional role in decreasing-cost/natural monopoly situations). Sometimes the government was present at the creation, and started the firm from scratch. More frequently, however, it inherited a losing proposition and reluctantly became the owner-of-last-resort, after having assisted the former, private owners by means of subsidies, loans, and/or loan guarantees. The CDC, the SGF, the Cape Breton Development Corporation, and the IDEA Corporation are all examples of firms created by the government. de Havilland, Canadair, Consolidated Computer, and Churchill Forest Industries are examples of private firms that were taken over by the government after they had fallen upon hard times and were about to be closed down. These government enterprises were intended to serve a variety of purposes, but each was also intended -- unrealistically, as it usually turned out -- to be commercially viable, if not immediately, then before too long.

Without for a moment denying the legitimacy of government intervention to promote technological, regional and socio-political objectives, there are good, well-documented grounds for doubting whether the government-enterprise instrument is generally the best means of doing so. The basic problem is that when it comes to operating a commercial enterprise at a profit, in a country like Canada, the evidence is overwhelming that, if private entrepreneurs cannot do it in a given situation, then, a fortiori, neither can the government. On the contrary, experience shows that, by resorting to this device, the government risks locking itself into a situation from which it cannot easily extricate itself, and which ends up costing more, often much more, than it would have done if the intervention had taken other forms. Only in the relatively rare case of a project whose complexity and time horizon are such as to make the contractual arrangements unduly cumbersome, if subsidies, loans or loan guarantees were provided to a private entrepreneur, would it be preferable for the government to proceed on its own hook, by means of a government enterprise.[3]

This leaves three cases of possible capital-market failure as the only ones in which it would not fly directly in the face of experience to entertain the notion that the government-enterprise is the most appropriate instrument of intervention. As was suggested above, these are most likely to arise at both ends of the venture-size spectrum -- one at one end, two at the other. With respect to the small-scale case, precedent, in the form of the IDEA Corporation, can to some extent be appealed to. In 1981, the Government of Ontario created the Corporation to Promote Innovation Development for Employment Advancement, otherwise known as IDEA. It was prompted to do so by the abovenoted, widespread belief that a gap existed in Canadian capital markets where small, new, and technologically-innovative firms were concerned. This ostensible gap went beyond the inadequacies of Canada's venture capital industry. It extended to what might be termed the "pre-venture-capital" area, embracing firms that were so embryonic as to fail to qualify as candidates for investment by venture capitalists.

During its brief lifetime (the Ontario government recently announced that the firm will be discontinued), IDEA, which commenced operations with an initial equity of $10 million -- to be increased to $107 million over a five-year period -- confined most of its efforts to a limited number of high-technology fields. It applied or conditionally committed more than $40 million to a wide variety of joint ventures with private firms, which were responsible for a share of their own financing. IDEA hoped ultimately to recover its outlays, and also to earn profits, by selling its equity in those ventures when they became commercially viable. What makes IDEA additionally relevant is the fact that it was made clear, from the start, that the firm would operate under a "sunset" rule, whereby it would be closed down if it did not earn, within a certain time, enough profits from its investments to become, and remain, self-financing.

IDEA was open to the criticism that its provincial-government financing was inequitable to the residents of Ontario. As taxpayers, they bore all the costs but, as consumers, they would receive only a share of the future social benefits generated by the firms in which IDEA invested, since their ultimate products would be sold nationally and abroad.[4] That reservation apart, its underlying concept appears to have been sound. In his contribution to the debate on the CDC, Neufeld argued that the Corporation's profit performance would serve as a test of the hypothesis that Canadian equity markets were not so efficient as to preclude the existence, on a significant scale, of profitable projects that private entrepreneurs had overlooked. While it would obviously be imprudent to elevate this shoot-first-and-ask-questions-later principle to the level of a general rationale for government-sponsored commercial activity, it does have merit in the restricted conditions under discussion. There is a reasonable case to be made for the creation of a federally-funded version of IDEA, which would have a similar mandate and would operate under similar "sunset" provisions. Although, as has been stressed repeatedly, it is inherently difficult to show a priori that the Canadian private sector has been remiss in pursuing all available profitable opportunities, enough testimony has been given to the effect that there is a gap in the pre-venture-capital field to make the experiment worth conducting.

The two possibilities at the other end of the venture-size spectrum are both more tenuous and problematical, but they cannot altogether be ruled out. Recall two of the functions that the CDC's proponents had intended it to perform. One involved acquiring worthwhile Canadian-controlled firms up for sale that would otherwise fall into foreign hands because there was no adequately-funded Canadian buyer; the other involved organizing and helping to finance domestic projects that were too large and too risky for private Canadian entrepreneurs to undertake on their own. Recall also Neufeld's suggestion that, if research indicated that there did exist serious gaps in Canadian capital markets, the CDC might initially act as a broker between Canadian business and existing Canadian investing institutions. From these elements, suitably adapted, it is not inconceivable that a useful role could be fashioned for a government enterprise.

Whatever the changes that have accompanied the Foreign Investment Review Agency's recent transformation into Investment Canada, the notion that foreign takeovers of Canadian-controlled firms must be shown to be in Canada's interests has been preserved. By itself, this is a negative factor (which, of course, does not detract from its value): it can prohibit what is deemed undesirable but it cannot accomplish what is deemed desirable. If the government's role were extended to include the provision of financial assistance to suitable Canadian-controlled buyers of takeover candidates, when it was apparent that the assistance was both deserved and not available from conventional financial intermediaries, the equation would be more complete.

What is contemplated here is the case of a relatively large Canadian-controlled firm up for sale, which the government wants to see remain in Canadian hands, but which cannot be purchased by a Canadian-controlled buyer because of an inability to arrange the necessary financing, on reasonable terms, through ordinary channels. For an appropriately mandated government enterprise to provide part of the purchase price, by buying the buyer's debt instruments or redeemable preferred shares, would be for it to act like a Federal Business

Development Bank writ large, as an investment banker of last resort. Given all that was said above about the evolution that has occurred in the level of sophistication of Canadian capital markets, it is not to be expected that such situations would be anything but infrequent. It is also to be expected that such government financial involvement in the acquiring firms would be fairly short-lived, lasting, as in IDEA-like cases, just long enough to enable them to absorb their acquisitions and stand on their own feet. Hence the suggested purchase of their debt instruments or redeemable preferred shares, which would pay interest or dividends and have maturity dates.

The need to perform the remaining function, involving the too-large, too-risky projects, would also arise only infrequently. As in the preceding case, the government's objective would be confined to ensuring that the projects were solidly launched and underway. It would then proceed to retrieve its outlays, made in similar forms, as soon as feasible, leaving the projects' subsequent fates to be determined by market forces.

Here, too, Neufeld's performance test is of the utmost importance, since the arguments in favour of creating a government enterprise to perform these functions do not rest on strong analytical or empirical foundations. To repeat, the most that can be said is that the possibility cannot be excluded that there is a current need for one. If this is reason enough for the government to proceed, it constitutes greater reason for it to proceed prudently and hedge its bets. The activities under discussion consist in picking neglected winners, not by outguessing stock market valuations of existing firms -- as the CDC has been wont to attempt -- but by operating in areas believed to be beyond those markets' usual ken. If this cannot be done successfully within a reasonable time, it would be sensible to infer that the gaps are nonexistent and then cut losses. It is also important to note another difference in comparison with the CDC. In these two cases, as well as in the pre-venture-capitalist case, the government enterprise would not act, as the CDC has done, as a conglomerate with ongoing, long-term management responsibilities in widely diverse markets, each with its own exigencies. It would act much more like an underwriter or investment banker -- in at the launching, then out as soon as possible afterwards. Granted, its managers would need to have sound knowledge of the relevant markets, but the basic difference between their involvements and those of a CDC-type investor remains.

As was just implied, the government enterprise created to perform these functions would be a different entity from the one created to operate in the pre-venture-capitalist field. Both would be in the business of filling ostensible gaps, and both their raisons d'être would, before long, either be vindicated or confounded by events. But because their respective environments would be so different -- one filled with many, small firms, the other with very few, large ones -- and because their projects' time horizons would usually also be different, they would require administrators with different attributes. These, in turn, would require, in addition to proper governmental oversight, mandates that are both appropriate to their tasks and explicit enough to dispel any notion that they have carte blanche. If any of this seems rather self-evident, the need for stressing it can be confirmed by referring to the experience of the CDC.

Thus, on this illustrative note the CDC returns to conclude the discussion, by performing in its most useful role as a cautionary tale. The lessons that are implicit in its experience will likely constitute the main compensation that Canadians receive, during the foreseeable future, for the costs that this inadequately-conceived and inappropriately-administered venture has imposed upon them. But if they are carefully heeded, they will not be less valuable for that.

One lesson, of course, is that there is no justification for the government to provide public funds for the unrestricted purpose of picking winners that Canadian stock markets have failed fully to appreciate. To devote public funds to such a quixotic pursuit is ultimately to squander them -- the odds against success are overwhelming. Another lesson is that there is no free lunch. Whatever valid grounds may exist for the belief that the contemporary stock of Canadian entrepreneurial talent is inadequate, none exist for the expectation that this "gap" can be closed quickly or without cost, least of all by means of a government-sponsored enterprise. If such a gap does indeed exist, and it is indeed due to inadequacies in Canada's educational system, her too-rigid social structure, and the legacy of her former colonial status, the solution would more likely lie in the development of a more modern educational system, in the fostering of a political and economic culture that allows more upward mobility, and, perhaps above all, in the passage of time.

APPENDICES

A. THE CDC'S CAPITALIZATION AND SHAREHOLDERS

It was envisaged by the CDC's proponents that, as it outgrew its dependence upon government equity finance, it would evolve into an institution of people's capitalism. That would enable it to provide Canadians who did not ordinarily put significant portions of their savings into equities with the opportunity of investing directly in Canada's economic development. The intention was to distribute CDC shares very widely across Canada, with no individual being able to hold more than a negligible proportion of the total shares outstanding at any given time. To facilitate this, it was also contemplated that the Corporation would bypass stock brokers and investment dealers and make its issues available to the public through other channels, thereby reducing transaction costs as well. The latter notion never materialized, but the goal of disseminating the CDC's equity as widely as possible among Canadians has been retained.

When the Corporation was established, it was authorized to issue 200 million common shares without par value and preferred shares having a total value of $1 billion, consisting of shares with a par value in any multiple of $5 and not exceeding $1,000. It had been arranged for the federal government ultimately to subscribe up to $250 million, which was to represent at least 10 per cent of the common stock, the remaining 90 per cent would be (widely) distributed among residents of Canada. The initial, 1971-72, issues of common shares, in the amount of $137 million, were to the government, in the context of the foregoing arrangement and also as part payment for Polymer.

During subsequent years, a series of additional issues took place. By the end of the 1985 fiscal year, the CDC's total issued capital stood at over $1.1 billion. This was made up of four classes of shares: common, and three classes of preferred shares. The issued common shares totalled $325 million. The federal government held 82 per cent of them, representing 47 per cent of total voting shares. The remainder was distributed among slightly more than 13,000 Canadian residents. The three classes of preferred shares, which vary by date of issue, convertibility and other features, were held, respectively, by over 8,000, almost 18,000, and over 5,000 Canadian residents. All classes of CDC shares have been actively traded.

There exists some evidence pertaining to the characteristics of the CDC's private shareholders. An early (1976) survey found that, in terms of "geographic location, annual income, investment holdings, and socio-economic status, the Corporation's shareholders were typical of that stratum of the population that invests directly in corporation stock."[1] The majority were individuals who already held substantial portfolios -- the members of the largest group, representing 30 per cent of total shareholders, held the largest portfolios. Granted, these data refer to the CDC's earliest private shareholders and, also, that investment dealers had touted the CDC's shares as "speculative" -- something guaranteed to scare off the unsophisticated investor -- the fact remains that the very people that the CDC was ostensibly trying to attract were proving to be least receptive to its offerings. There is no reason to believe that this situation changed significantly during subsequent years. If such Canadians were not tempted to buy CDC shares during the Corporation's salad days, it is unlikely that they bought them later, all the more so since they were not sold through channels that imposed lower transaction costs than the shares of any other corporation.

B. CANADIAN MIXED ENTERPRISES AND THE CDC

Mixed enterprises -- firms in which the equity is held jointly by the government and private shareholders -- exist in many countries, developed and developing alike. In developing countries, where capital markets are usually fairly primitive, equity participation by the government is often indispensable to the creation of the firms. Nationalistic considerations frequently enter into the government's calculations as well, since much of the private equity finance tends to come from foreign sources. To a lesser, but still considerable, extent, the same is true of Western European countries. They, too, have numerous mixed enterprises, even though their economies cannot, for the most part, properly be characterized as developing. So far as North America is concerned, the mixed enterprise is a relatively rare phenomenon; most of the ones operating in the nonfinancial sector are to be found in Canada. They are virtually nonexistent in the United States.

Mintz (1978) provided a fairly systematic discussion of Canadian mixed enterprises, as a group. He noted that mixed enterprises have been established in this country by both the federal government and various provincial governments, and that they vary widely in their structures and areas of activity. They range from single-industry firms -- like the Alberta Energy Company and the Interprovincial Steel and Pipe Corporation -- to investment holding companies -- like the CDC and the SGF. Mintz suggested that governments in Canada have two valid economic grounds for providing equity finance to firms engaged in ordinary, nonmonopolistic commercial activities. One arises from the olipolistic structure of the Canadian equity market, the other from the different risk-imposing characteristics of investments made in the face of uncertainty: these depend upon whether the investments are privately or publicly funded. We now consider both these grounds.

That Canadian equity markets have been, and remain, quite far from perfectly competitive is incontestable. This is due, not only to the dominant market shares of a handful of large brokers and investment bankers, but also to the regulatory constraints that have been imposed upon other Canadian financial institutions -- such as insurance companies -- which have limited the proportions of their assets that could be represented by equities. One consequence of this state of affairs has been the relatively high transaction costs that domestic firms -- especially smaller and newer ones -- have had to bear when obtaining equity finance. It has therefore been suggested that if the government were to provide otherwise deserving firms with equity finance at lower costs, or enable them to appeal directly to private savers, again at lower costs, it would close a familiar "gap." Although it is true that Canadian equity markets are not perfectly competitive, it is equally true that they are also far from being primitive or unsophisticated. Thus, the practical question of the extent of this gap becomes, in the end, the important one, and to it we will shortly return.

The other ostensible justification for governmental provision of equity finance to ordinary commercial firms is much more problematical -- it is certainly more controversial. Granted that the future net-income flow of an investment undertaken by a private firm must be discounted at a rate that includes a premium for risk bearing, the question is whether the same discount rate should be applied when the project is funded by the government or whether it should be reduced by the risk premium. It was held by eminent economists (including two Nobel Laureates) that no risk premium should be included in the discount rate applied to government-funded projects. The grounds upon which their positions rested varied but may be classified under two headings: risk pooling and risk spreading. The former was specified by Samuelson and Vickrey (1964), the latter by Arrow and Lind (1970).

This is not the place for an analysis of the rather technical arguments that were developed in support of these positions, but a very brief outline of the main points is in order. According to the risk-pooling notion, a given government-funded project, though risky in itself, is generally but one of many similarly risky, but diverse, projects funded by the government at any given time. If the rates of return earned by all such projects are both statistically independent and independent of national income, the discount rate applicable to this project's projected net-income flow should not include the risk premium that a private firm would be obliged to include if it undertook the project. The risk-spreading notion also requires that government-funded projects be statistically independent and independent of national income, but now the critical factor is the number of taxpayers who collectively provide the funds. When that number is large enough -- as it would be in the case of a federally-funded project -- so that each taxpayer's outlay is only a negligible proportion of his income, then, again, no risk premium should enter into the discount rate applied to the project's projected net-income flow.

Both these notions were disputed by other writers, whose grounds also varied, and the debate continues.[1] But little of this really matters, so far as the CDC (or any similar entity) is concerned, however pertinent it may be to the water-resource type of projects that initially provoked the controversy, or to the purely hypothetical entities that other writers have conjured up for purposes of exposition. When the federal government provided equity finance to the CDC, it did something distinctive from the standpoint of risk-bearing: it funded a multi-product firm. Such a firm -- let alone a conglomerate -- is not a "project" in the same discrete sense as a water-resource undertaking. By putting equity finance into the investment holding company known as the CDC, the government in effect authorized its top administrators to engage in adjustable, almost protean, commercial activities of their own choosing, year after year. As has been seen, these activities have largely consisted in the acquisition of existing firms and the continuation of their established operations (although the post-acquisition mixes and scales of those operations may well have differed from what they had been before).

It therefore cannot be maintained that the CDC, as a whole, is a "project." If it is to be so regarded, it must then be seen as a member of such a small set of comparable "projects" that neither the large-number requirement nor the requirement of independent returns is capable of being satisfied. Although it is much more realistic to regard the CDC as itself comprising, over time, a variably-sized set of projects, which are themselves of different sizes, that also fails to suffice. Granted, the covariance between the rate of return earned by one CDC investment vehicle in a given natural-resource industry and that earned by another vehicle in a given manufacturing industry might turn out to be very low. But it might, in the case of another pairing, turn out to be high. In any event, all the rates of return will certainly be correlated, probably highly, with national income. Arrow and Lind invoked the efficacy of stabilization policies as a defence against the criticism that this would tend to be a common occurrence. However plausible this defence may have been in 1970, it is clearly much less plausible today. Similarly, within a natural-resource group of investment vehicles, as within a manufacturing group, the rates of return earned by individual firms are likely to be correlated, very much like those earned by the various profit centers within a single firm.

So -- and without considering that operating decisions in the CDC are taken by risk-averse managers, no less subject to moral hazard than the risk-averse managers of private corporations -- it is evident that even if the arguments for risk-pooling/risk spreading are accepted, with respect to fairly discrete government-funded projects, they provide little support for exempting the activities of the CDC from the same risk premium as that borne by those of an analogous private conglomerate.

We now return to the question of the extent to which the rigidities of the oligopolistic and regulated Canadian equity market can be cited to justify the creation and subsequent behaviour of the CDC as a mixed enterprise. In a contribution to a volume on public enterprise in developing countries, Mintz (1982) developed an analytical framework that implies that even if the independence requirements of risk-pooling/risk spreading are not met, a country's equity markets can still be so undeveloped as to endow mixed enterprises with the potential capacity of increasing its level of total welfare above otherwise attainable levels. This improvement in welfare is not guaranteed by the mere existence of the mixed enterprises -- governments are no more infallible than anyone else -- but the possibility is created. The magnitude of that possibility depends, however, upon how prohibitive the existing transaction costs actually are for private entrepreneurs. (In Mintz's world, both the primitiveness of conditions and prohibitiveness of costs are great.) As has been indicated -- and as seems to be accepted fairly generally -- the structure of Canada's equity markets has imposed, and may still impose, significantly inequitable burdens upon small, untried firms, especially those in technologically-dynamic fields, in their efforts to obtain equity finance. But that seems to be their most serious deficiency in the present context -- a far cry from the environment contemplated by Mintz. There is very little evidence to suggest that larger, established firms have been similarly handicapped, especially during recent years. This suggests that, apart from its minor investments in the venture capital industry and, perhaps, some of its smaller acquisitions in manufacturing, the bulk of the CDC's investments cannot be justified on the basis of this rationale. It is also worth repeating that the CDC's public issues of shares have been made via the same channels and institutions as those employed by private corporations. They have therefore imposed the same transaction costs.

The performance of the CDC also fails to provide support for a related argument that has sometimes been advanced in favour of mixed enterprises that are government-controlled but have significant private shareholdings. According to this argument, government control serves to ensure that the firm is available to be used to promote one or more government objectives, while the presence of the private shareholders -- who naturally require a competitive commercial return -- serves to ensure that it will nonetheless be operated on a sound commercial basis.[2] The notion that such a firm is capable of earning a competitive rate of return (in addition to achieving government-chosen desiderata) is not far removed analytically from the notion that the government is capable of creating or acquiring, and then operating profitably, commercial firms that private entrepreneurs have overlooked or abandoned -- that the government, in short, can pick neglected winners.

The first point to be noted in this connection is the fact that both the government and the CDC's management have, except for a single brief interval, always been adamant in their insistence that the latter would enjoy full decision-making autonomy. This could only mean that they would be entirely free to choose their investments and operate them as they saw fit. If it is probable that they did not regard themselves as being entirely unconstrained in their investment choices, with respect to nationality of previous ownership, it does appear that they have succeeded in otherwise operating the CDC entirely according to their own, profit-maximizing lights.

This impression remains in spite of the widely-publicized, so-called "Reisman Affair" of the latter seventies, when the government refused to allow the reappointment, after his resignation as Deputy Minister of Finance, of an ex officio member of the CDC's Board of Directors. It is strongly sustained by another episode, the so-called "Strong Affair" (which was also widely publicized) of the early eighties. On that occasion, the government sought to install as Chairman one of its newly-nominated members of the CDC's Board, and also to appoint two new members. The proposed new Chairman was that relatively rare Canadian, a remarkably successful entrepreneur who was also a strong believer in government intervention in the economy, not only at the macroeconomic level but at the microeconomic level as well. In other words, the previously-mentioned Maurice Strong was an outspoken advocate of "industrial policy." He was also well-known as an ardent economic-nationalist, more or less in the Gordon tradition, and he had had a hand in planning the CDC. One of the other two government nominees also had a career history that implied that he probably shared the outlook of the proposed new Chairman. All this occurred within the context of other indications, which had emerged during the recent federal election campaign, that the existing laissez-faire era was about to end, and that the CDC would henceforth be an explicit part of the government's economic-policy tool kit, all the many previous, solemn assurances to the contrary notwithstanding. With the support of the rest of the Board, and aided by unequivocal public support from many business leaders and much of the media, the Corporation's Chief Executive Officer resisted the government. Eventually, the government retreated. The affair left the government disappointed, the members of the Board resentful, and the general public (or that part of it that took an interest in the CDC) confused and suspicious. There is little doubt that this episode contributed to the government's subsequent decision to transfer its CDC shares to the newly-formed Canada Development Investment Corporation, with a view to selling them to the private sector at an opportune time.

This history of independence from the government makes it inappropriate to look to the experience of the CDC for guidance as to the suitability, in a country like Canada, of the mixed-enterprise instrument for simultaneously serving public-policy and private ends. The nearest domestic example of this genre is the abovementioned, Quebec-controlled SGF, and its experience, over two decades, is hardly encouraging: it has a very poor earnings record. Thus, once again, the most likely hypothesis is that, less-than-perfectly-competitive though they may be, Canadian equity markets are sophisticated enough to make it extremely difficult for either the federal or provincial governments successfully to select, and provide equity finance to, commercial firms that subsequently earn competitive rates of return. To further encumber such firms with additional roles that, however laudatory they might be from society's standpoint, oblige them to operate in a fashion that is contrary to the dictates of the market, is to ensure that their already-difficult task (of earning a competitive rate of return) becomes virtually impossible. This holds true whether or not some part of their equity is privately held. Such is the clear message of Canadian experience, and it is echoed by that of the various Western European countries that have made use of mixed enterprises that were mandated simultaneously to pursue profit goals and one or more social objectives. Strong evidence is now available to the effect that, whatever the (usually undocumented) extent to which they have attained their social objectives, these firms have usually failed to earn competitive rates of return.[3]

FOOTNOTES

Chapter 1

1. *Government of Canada* (1968). Cited hereafter as Watkins.

2. Government of Canada (1970).

3. Dimma, p. 403.

4. *Ibid*.

5. *Ibid*.

6. *Ibid*., pp. 403-4.

Chapter 3

1. In addition to those reported, various other rates of return have been calculated, including rates of return on capital employed. Details may be obtained by communicating with the author. Comparisons based on these data lead to the same conclusions as those drawn herein. It is well known that accounting rates of return are open to various conceptual criticisms. It is also true that "generally accepted accounting principles" allow not-insignificant variations in the reporting practices of firms. Nevertheless, these profit measures continue to be widely used, and they can be justified on much the same grounds as those invoked by Winston Churchill in justifying democracy as a political system -- all the practical alternatives are worse. What this implies, in the present context, is that it is necessary to be judicious in making comparisons based upon them.

2. Eckel and Vermaelen (1983) utilize one such model in an attempt to gauge the stock market's immediate reactions to the CDC's acquisition of shares in Texasgulf and Savin. Interesting though it is in its own terms, this type of exercise has little applicability to the issues examined in this study.

3. The fact that firms frequently report "extraordinary items" in their income statements presents a problem, whether their rates of return are calculated before or after such items (the "after" rates are reported herein). Once again, the only solution is to be as judicious as possible in making inferences from the relative variability of the rates of return of the compared firms.

4. The samples of firms that were drawn to represent the group are dominated by large firms. See Statistics Canada, *Industrial Corporations*, Cat. 61-003, quarterly for further details. It should also be mentioned that various data were obtained pertaining

to the rates of return earned by large nonfinancial corporations whose shares are traded in Canadian stock markets. They tend to substantiate the comparisons made herein.

5. Statistics Canada, Current Economic Analysis, March, 1982, Cat. 13-004E.

6. This statement, like later, similarly unequivocal comparisons between the rates of return of specific firms and those of the average firm in the nonfinancial sector, are, when the series is long enough, supported at high-confidence levels by both t-tests and Mann-Whitney-Wilcoxon tests.

7. Tobin, James and William C. Brainard, "Asset Markets and the Cost of Capital," in B. Belassa and R. Nelson (eds.), Economic Progress, Private Values and Public Policy (Amsterdam: North-Holland, 1977).

8. CDC Oil and Gas Ltd., Annual Report, 1980, p. 3.

9. The National Energy Program, 1980 (Ottawa: Supply and Services Canada, 1980).

10. Tarasofsky (1984) and references cited therein.

11. It could be argued that the innovations produced by these firms (and by other CDC acquisitions) generated social benefits that should be set against their operating losses. As the present writer and others have shown (see Tarasofsky, op. cit and references cited therein), circumstances can indeed exist where government subsidies, either paid directly to private entrepreneurs or indirectly via the deficits of government enterprises, could serve society's interests. What renders such considerations largely irrelevant in the present context is the fact that the CDC never sought to serve Canada by undertaking innovations that were in the social, but not the private, interest.

Chapter 4

1. Watkins, p. 11

2. Economic Council of Canada, The Bottom Line (Ottawa: Supply and Services Canada, 1983).

3. Tarasofsky, op. cit. and references cited therein.

4. Borins (1986) is a recent example.

Chapter 5

1. These and other data are summarized in Department of Industry, Trade and Commerce, An Overview of Small Business Financing, Report of Small Business Financing Review Team, May 18, 1982.

2. See Hatch (1983), pp. 389-91, for a review of various recent studies.

3. This interval reflects the data set that was kindly made available by the Department of Finance.

4. See Adams and Brock (1986) and references cited therein.

5. Breton (1964) and Johnson (1968).

Chapter 6

1. See Chapter 9 of the Commission's report.

2. Ibid.

3. The relevant factors are discussed more fully in the Economic Council of Canada's Minding the Public's Business, Chapter 6.

4. See Tarasofsky, op. cit. for a discussion of the issues involved in the subsidization of for-export innovations.

Appendix A

1. Reported in Brooks (1983), p. 533, and Graham (1977), pp. 81-91.

Appendix B

1. Foldes and Rees (1977) and Mayshar (1977), for example.

2. Musolf (1978) and Viallet (1977), and references cited therein.

3. Hindley (1983).

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LIST OF TABLES AND FIGURES

List of Tables

Page

1 Canada Development Corporation; Total Assets, by Industry Group, 1973-82. 37

2 Canada Development Corporation; Net Income, by Industry Group, 1973-82. 39

3 Canada Development Corporation and Nonfinancial Sector; After-Tax Rates of Return on Equity, 1973-82. 42

4 Metal Mining; After-Tax Rates of Return on Equity, 1965-73. 48

5 Metal Mining; After-Tax Rates of Return on Equity, 1974-82. 50

6 Oil and Gas; Major Corporate Acquisitions, October, 1980 to May, 1982. 59

7 Oil and Gas; After-Tax Rates of Return on Equity; 1976-82. 63

8 Polymer; After-Tax Rates of Return on Equity, 1963-72. 67

9 Petrosar; After-Tax Rates of Return on Polysar's Investment, 1978-82. 69

10 Polysar; After-Tax Rates of Return on Equity, 1973-82. 70

11 Canada Development Corporation; After-Tax Rates of Return on Investment in Petrochemicals, 1978-82. 72

12 Canada Development Corporation; Other Investment Areas; After-Tax Rates of Return on Equity, 1974-82. 75

13 Foreign Direct Investment in Canada at Book Value. 91

14 Canadian Corporate Assets and Percentage of Foreign Control, 1967-68. 92

15 Control of Capital Employed in Selected Canadian Sectors. 93

16. Nonfinancial Sector and Certain Investment Holding Companies; After-Tax Rates of Return on Equity, 1975-84 127

Page

List of Figures

1 Percentages of Assets, Sales and Profits of Foreign-Controlled Corporations in the Nonfinancial Industries, 1971-82. 138